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### CABLE TESTING.\*

By George D. Hale.

As the unreliable and to a large measure experimental methods in electrical construction of the past are being rapidly replaced by more substantial scientific systems, so is the pole line giving way to the electrical cable wherever the change is feasible from a financial standpoint.

The demand for ever increasing reliability and high quality of service has long since settled this problem electrically, but financially it often remains an open question.

As in everything else, there are all kinds and grades of cables adapted to all classes of service and complying with widely differing specifications. The feeble telephone currents and the high potential circuits alike require a high resistance insulation, though for different reasons, and a most reliable construction of the line to secure the best results. For low potential systems it is considered unnecessary to have such high resistance insulation, as the loss would be immaterial and the element of danger would not be of any serious importance. Assuming that high grade cables are necessary for telephone systems at least, the questions arise:

How to manufacture such as will be suitable?

How to test the same during and immediately following the process of manufacture?

How to prevent their deterioration when laid?

How to locate trouble in them when it arises?

As regards the first, the manufacturers have solved this for us and have placed on the market the well-known lead-sheathed, paper-insulated, dry-core cable. For the benefit of some, a slight description of this cable might be in order. It consists of a bundle of separately insulated copper wires, carrying in number from five to 200 pairs, the usual size of wire being No. 19. As ordinarily

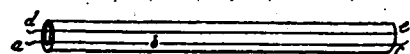


Fig. 1.



Fig. 2.

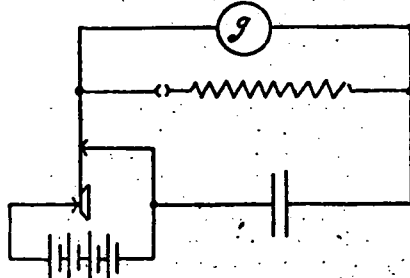


Fig. 3.

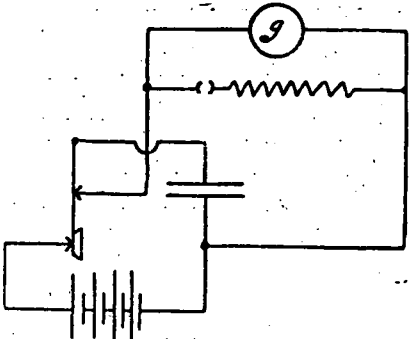


Fig. 4.

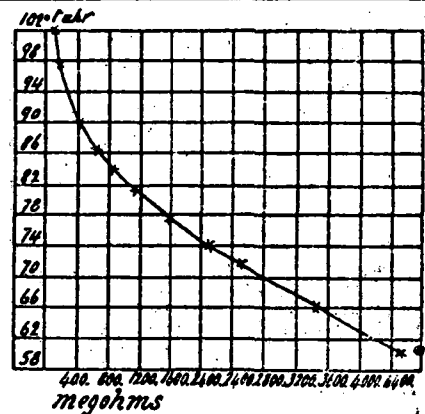
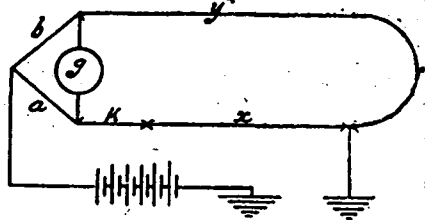


Fig. 5.



*b and a = arms of bridge*  
*K = variable arm*  
*x and y = Portions of loop*  
 $L = x + y$  or  $y = L - x$   
 $\frac{b}{a} = \frac{K + x}{K + y}$  or  $\frac{b}{a} = \frac{K + x}{K + L - x}$   
 $\therefore x = \frac{aL - bK}{a + b}$

Fig. 6.

### CABLE TESTING.

constructed, each wire is taped with a paper ribbon, the wires of a pair being wound spirally around each other, each concentric layer being wound on spirally, right and left hand alternately, the whole being wrapped with cotton yarn and enclosed in the lead pipe. By far the larger proportion of these cables are without any paraffine or other insulating compound, but are simply baked until free from moisture. The main advantages of this type of cable are their low electrostatic capacity and their high re-

sistance insulation. Their weak point is that a small opening in the lead sheath practically ruins a cable in a few hours. Where a low capacity is not essential, the cables are usually saturated with paraffine, so that in case of a hole being made in the sheath the entire section of the cable will not be rendered worthless. However, as paraffine absorbs moisture to some extent, the opening should be located and repaired as early as possible to prevent the loss of a considerable length of the cable.

\* Read before the Chicago Electrical Association, March 19, 1897.

Now, considering the second question as to factory tests, this will be divided into two parts—tests made during the process of manufacture and tests made immediately following the completion of the cable.

In the former the wires are simply tried with a battery and bell to test for continuity and absence of crosses. In the case of a broken wire, as in Fig. 1, the capacity of each portion is measured as against the rest of the wires, and by direct proportion the distance from either end is determined. The capacity of  $ab+bc$  should equal the capacity of the good wire  $de$ . The capacity of  $ab+bc$ : capacity of  $ab$ : length of  $ac$ : length of  $ab$ . If the insulation is low a special method to be described later must be used. When two wires are crossed, the resistance of the wires is measured separately; also the resistance around the loops  $aec$  and  $bed$  are determined, corrections being made for the resistance of the cross and the distance from either end calculated as in Fig. 2. The resistance of wire per foot, as measured in  $ab$  and  $cd$  is found to be, say  $x$  ohm. Then the resistance of the loop  $aec \div x =$  twice the length from  $a$  to  $e$ . To check the work the resistance of loop  $bed$  may be measured.

The cables, having passed through the preliminary tests, go to the drying ovens and then to the hydraulic lead presses, where their manufacture is completed. After cooling sufficiently, they are turned over to the cable testers, where the electrostatic capacity and insulation resistance of the wires are measured. The requirements usually specified demand an average capacity not exceeding .080, with no wires above .085 microfarad per mile. The insulation resistance must be at least 500 megohms per mile. In saturated cables the capacity varies between .1 and .3, depending upon the details of construction, and the insulation resistance ranges between 100 and 1,000 megohms per mile. The absolute capacity and insulation resistance of the wires vary from .001 of a microfarad up and from 500,000 megohms down, depending on the length and kind of cable, so very sensitive instruments must be used.

A large four-coil astatic needle Thomson galvanometer has been found to be suitable, and having a potential of 600 volts at command the insulation resistance constant is 528,000, while 2,000,000 can be obtained if desired. For capacity measurements the constant is 26,400, which is sufficiently high for all cables usually met with, however short.

The 600 volts is generated by a motor-dynamo obtaining current from a storage battery of 20 volts. A very steady voltage is there by secured, so that the potential can be used in the testing circuits in the same manner as if the voltage was derived from a battery direct. The circuits used for capacity and resistance in the cable tests are shown in Fig. 3, and for capacity only in Fig. 4.

In charging dry-core cables with the 600 volts, it seems to make no difference in capacity readings how long they are in circuit, but the insulation resistance increases slightly with the time of charging. However, in saturated cables the longer the cables are charged the greater are the capacity and the insulation resistance, owing to the soaking in of the electricity and the polarization of

the dielectric. Five seconds are sufficient for dry cables, while one minute is uniformly used in all saturated ones.

It is sometimes stated that the insulation resistance of a cable will not be the same when measured with different potentials, but it has been found that such is not the case. As long as the dielectric acts as a conductor only, there being no sparking through the paper, no change in the insulation resistance could be detected.

Heat increases the capacity and decreases the resistance to a slight extent in dry cables, but in saturated ones the variation is most pronounced. The curve, shown in Fig. 5, was plotted from experiments which illustrate this point. This curve was constructed from tests made on a paper-insulated, lead-sheathed electric light cable, having a No. 6 solid conductor surrounded by one-quarter inch thickness of paper saturated with resin oil. It was placed in a large tank of water heated very gradually, and was allowed to remain two or three hours at one temperature before a reading was taken, in order that the error should be as small as possible. The factory tests on all saturated cables made in the winter are, therefore, as a rule somewhat higher in resistance and lower in capacity than those tested in summer. This is due largely to the reason just mentioned, but the presence of moisture in the air during the summer also tends to lower the resistance to some extent, as the cable ends absorb some moisture from the air. Since a cable is nothing more nor less than a condenser of a small capacity, so anything which affects one may be expected to have its effect on the other. Hence, when the resistance of insulation drops for any reason the capacity increases.

In a 100 pair No. 19 wire dry-paper cable an increase of one thirty-second of an inch in diameter will decrease the capacity about three-thousandths of a microfarad per mile. This increase does not apply to the pipe alone, but the whole cable is loosened to some extent. Another detail which increases the capacity of this style of cable is the paraffine which saturates the ends of the reel length. This is done to prevent the absorption of moisture by the paper, which is exceedingly dry, while the cable is being tested as well as when the splices are being made between reel lengths.

How to prevent deterioration of the cables after being laid is the next question. The ease with which the lead-sheathed cables may become punctured is their admitted weak point, and how to protect them from electrolysis and mechanical injury is difficult as well as expensive. Electrolysis is often prevented by coating the lead sheath with several layers of tape laid on with some insulating compound. This process has given good satisfaction in some places where the conduits are filled with water, having a corrosive action on the lead. Mechanical injury is usually avoided by placing the cables in strong conduits or in elevating them on poles.

As regards the tests of cables when laid, much which has been said concerning factory tests applies equally well here. However, the main differences lie in the decreased sensibility of the apparatus required and the new feature of hunting and locating trouble. The long

lengths of cable mains have a high absolute capacity and a low insulation resistance, so the instruments need not be nearly so sensitive as in the usual factory tests. The greater part of the trouble in telephone mains can be traced to low insulation, usually located in splices or near perforations in the sheath. The old orthodox method of cut-and-try is often used; this consists in opening the line successively from splice to splice and locating the trouble in a certain length. However, this is only used when the insulation resistance is comparatively high, or when all the wires in the cable have the same resistance, which two conditions prevent the usual loop tests. Varley's loop test, which is employed to locate the place where a wire is grounded to a greater or less extent against the sheath, is illustrated in Fig. 6. Since the resistance of the ground introduces no error in the work, but simply makes the galvanometer less sensitive, this method may be very accurate when proper precautions are taken.

In an aerial cable line, about seven miles long, the location of a partial ground was found by this method where the resistance of the ground was over 300,000 ohms, while the best wire was only three megohms. When the contact of the grounded wire is variable, great care is necessary to avoid misleading results. When two wires are crossed with a high resistance at the point of contact, Varley's loop method may be used, considering one of the wires as the ground and using an extra wire for the clear side of the loop. Thus it may be seen that with proper instruments and a little care the location of any trouble usually met with is comparatively a simple matter.

#### HIGH VOLTAGES.

Appropos of the constantly increasing voltages in electric transmission lines, Mr. C. P. Steinmetz, the well-known American electrical engineer, recently remarked before one of the electrical societies that while only a few years ago 3,000 volts were hardly considered commercially safe, 11,000 and 12,000 volts are now used extensively, and 15,000 to 20,000 volts are under discussion. The danger limit is reached in the high potential lines, not in the step up and step down transformers. Transformers can be built and operated safely at voltages far beyond anything ever thought of for power transmission. Only a few months ago Mr. Steinmetz was able to reach, by stationary transformers, a potential of 160,000 volts effective, or nearly a quarter of a million volts maximum—by the way, probably the highest alternating voltage ever experimented upon by man, if we leave out electrostatic charges and oscillatory discharges as limited power phenomena, while in his case he had practically unlimited power—a 100 kilowatt motor—behind the 160,000 volts. In line insulators considerable progress has been made, and insulators can now be secured which will not be pierced below 50,000 or 60,000 volts effective alternating potential in dry weather. When damp, in fog or rain, a considerably lower voltage will leak or creep over the insulator surface, and thus short-circuit the line, and this brings us to the real limitation of transmission voltage which exists at present, the climate. In a perfectly dry climate Mr. Steinmetz would

not hesitate to consider 20,000, or even 30,000 volts quite safe, while in a very damp and foggy climate, in rain and sleet, half this voltage may be decidedly unsafe.—Cassier's Magazine.

## ALTERNATING-CURRENT WIRING.

By George T. Hanchett.

Alternating-current wiring differs from direct-current wiring in some important details, which should be known to the wiremen. The reason for this difference is found in the fact that, owing to a peculiar property of alternating currents, the loss of volts in the line is usually somewhat greater. This extra loss in volts arises from a very different cause from that of the ohmic resistance of the line. The line always has the same resistance whether the current be direct or alternating. This additional cause of loss of voltage is called the reactance and only asserts itself when alternating or rapidly-varying currents are used. The combined retarding effect of the reactance and resistance is called the impedance of the line.

Reactance consists of two factors, one of which is known as the inductance and the other as the capacitance of the circuit. The inductance tends to retard and the capacitance to assist the flow of the current. It sometimes happens that this new factor appearing in alternating current lines has a negative value and actually assists the flow of current through the wire, sometimes making the voltage available at the end of the line greater than that impressed at the receiving end. When this factor has such a value that tends to counteract or eliminate the effect of the resistance, capacitance is said to prevail. This curious effect of an increased terminal voltage with lines of large capacitance puzzled experts a long while, and while this state of uncertainty existed it was named the Ferranti effect, because it was first noted in a marked degree on the Ferranti mains at Deptford, England.

It is evident that any circuit which possesses a marked reactance cannot be calculated by the ordinary direct-current methods. Something more is necessary and that it is the aim of this article to provide. Before submitting the formulae and curves, a brief discussion of these two new factors in wiring will be interesting and opportune.

The student of electrical matters has early learned that a wire carrying a current is surrounded by a field of magnetic force, the lines being at right angles to the wire at every point and therefore forming a circle about the wire in a plane at right angles therewith. Another elementary principle is that a wire cut by, or cutting, lines of force has generated in it electromotive forces due to such cutting. It is only necessary to apply these principles to a wire carrying an alternate current to get a sufficiently clear idea of inductance for the purposes of interior wiring.

It is evident that if the current is a constant direct current, the magnetic field it generates will be both steady and constant, but if the current be alternating and continually fluctuating between a positive and negative maximum value, the field that it creates will be fluctuating also, and lines of force will be continually sent out and called in, in order

to keep their number exactly proportional to the current the wire is carrying. Any conductor placed in this moving field of force will be cut by these lines, and electromotive forces will be generated therein. The conductor to which the lines of force owe their existence is no exception to this law. Therefore, as the pulses of current oscillate back and forth in the wire, little pulses of electromotive force are generated in it, due to the field outside, and these pulses are so timed that they interfere with the impressed electromotive force and reduce its effective value. It is easy to see that this is a property essentially belonging to alternating or fluctuating currents. The pulse of induced electromotive force collides, as it were, with the impressed electromotive force, rendering their difference only effective.

Capacitance is also due to electromotive forces other than the impressed electromotive force existing in the wire, but these electromotive forces are due to an entirely different cause. To understand this a comprehension of electrostatic capacity is necessary. If two plates are charged from a source of electricity and these plates are carefully insulated from each other, they will retain their charge after the wires are removed, and if they are connected together a pulse of current will flow till equilibrium is restored. These plates may be of any shape and size and may be any distance apart; the insulator may also be of any kind, and on these magnitudes just enumerated the capacity effect depends. It has been common to describe a condenser as two conductors separated by an insulator. Every electric circuit contains this and therefore every electric circuit has capacity.

Now, if the impressed electromotive force on a condenser is steady, the condenser will simply be filled with electricity at that pressure, and no other effect will be apparent. If, on the other hand, the current is alternating, the condenser will have a chance to discharge into the line at the instant when the electromotive force impressed upon it becomes zero or nearly so, and these pulses of electromotive force are so timed that they assist the flow of current in the wire. This phenomenon is called capacitance and, like inductance, only asserts itself when the current is pulsating or alternating. Below are enumerated the factors affecting reactance.

Great capacitance results from the following conditions:

Conductors of large superficial area, such as ribbons or concentric tubes; minimum linear distance between conductors; high specific inductive capacity of the separating insulator; a peculiar and special property.

High inductance is caused by high frequency of pulsation of the alternate current; strong magnetic field generated thereby, which in turn, depends on the area of the circuit, and the presence of magnetic material, such as iron, within it.

In interior wiring the phenomenon of capacitance is seldom noticed because it is entirely overshadowed by the more prominent inductance effect. In fact, capacitance is seldom, if ever, noted except when the wiring is on the concentric system in which one of the conductors is a tube and contains the other. The aim, therefore, should be in alter-

nating-current wire to arrange the circuits so as to have as little inductance and as great a capacitance as possible, and then to calculate the wire by a formula that takes these factors into account and gives the wire sufficient extra conducting power, in order that the ohmic drop will be reduced so as to make up for the inductive drop that is unavoidable.

To do this the following conditions should be observed: The lead and return wires should be as near together as possible; this both reduces the reactance and increases the permittance. The circuit should avoid the form of a coil and should contain no iron. The wires should be as small as possible. A number of specific cautions will be mentioned, for although they are suggested by the general cautions already given, they are examples of application and cover some very common cases.

When iron-armored conduit is used, the two wires of a circuit should be run in one tube, for otherwise the circuit will contain iron to such a degree that the use of an enormous cable, which would practically eliminate the ohmic drop, would still insufficiently reduce the impedance of the circuit.

It must be distinctly remembered that increasing the size of the wire does not appreciably diminish the inductive drop. It diminishes the resistance, and by thus reducing the ohmic drop renders the inductive drop more endurable. Loop circuits, which are so useful in direct-current wiring, are too inductive to be used in alternating-current wiring, except in cases of a small system.

In running out a large number of leads from a cabinet, the common practice of bunching the wires of like polarity, will result in an increased reactance of that part of the circuit, while the bunching of unlike wires will practically eliminate it. The reactance effect may be so great that it will pay to adopt the latter expedient and increase the insulation of the wiring.

If a closed loop be placed so as to coincide with a loop of wire carrying alternating currents, currents will be generated therein and will neutralize the effect of inductance to a considerable extent. Therefore, when the running alternating-current wiring in separate metal-armored tubes, it will be well to connect the outer armor of the two tubes at intervals and thus reduce the inductive drop.

Turning now to the calculation of a circuit, the student is referred to the accompanying curves. It would be tedious and incomprehensible to many to follow the theory by which they were deduced, but any one can practically apply them. There are two sets of curves, one for the frequency of 15,000 alternations per minute and the other for 7,200 alternations per minute. Both of these are frequencies that the interior wireman is likely to encounter.

The line loss is assumed as in direct-current wiring, and the length of the circuit (single distance) is also known. The current to be carried is determined by calculation from the number of lamps in circuit. The rule is as follows:

Divide the line loss by the amperes to be carried, and by the distance in feet. This gives a numerical quantity called K. Search out the value of K and of the interaxial distance of the wires on

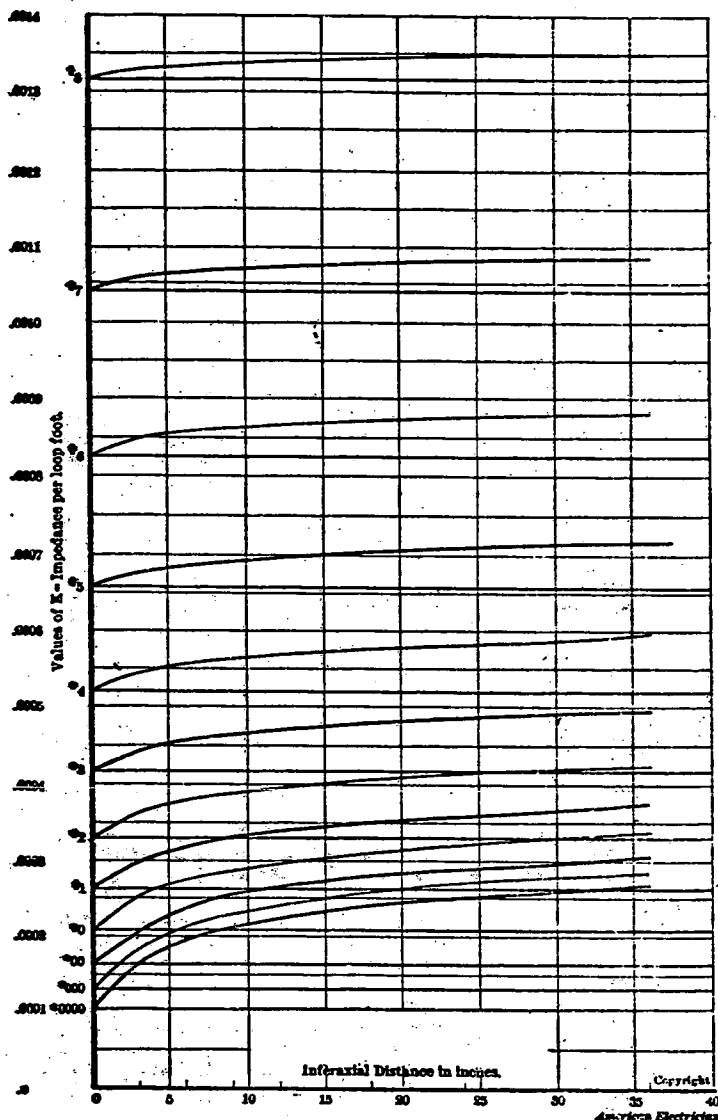


FIG. 1.—ALTERNATING-CURRENT CURVES FOR 7,200 ALTERNATIONS PER MINUTE.

the axis of the curves given. Follow the ordinate and abscissa thus indicated to the point where they intersect, and choose the wire corresponding to the nearest curve. The nearest straight line corresponds to the wire that should be used if the system be one of direct currents, and it will be seen that a notable difference exists. It will be noted that the straight lines are the same for all interaxial distances and frequencies, which, of course, is to be expected. With these two charts almost any interior circuit can be calculated.

As some readers may not clearly understand the use of the curves for alternating-current wiring, several problems will here be given to cover all possible cases.

The first thing to do is to divide the line loss, which is assumed as 4 volts, 5 volts or 10 volts, etc., by the current to be transmitted in amperes, and to divide that result by the distance in feet. The result is the impedance per foot of circuit, and has been designated by  $K$ . The value of  $K$  is sought on the vertical scale of the curve and the interaxial distance (that is, the distances between the centers of the wires) is found on the horizontal axis. Thus an ordinate and

an abscissa are located and these two lines meet in a point. This point is in the midst of the curves and the nearest one corresponds to the proper wire to use.

The wires that are indicated in the curves cover any cases that the interior wireman is likely to encounter. Any smaller wires should be calculated by the ordinary direct-current rules, for in those cases the inductance is such a small part of the total impedance that it is negligible. It will be noted in the curve for No. 8 wire with 7,200 alternations, that the curve and the straight line so closely agree that a point nearest the curve would also be nearest the straight line, and therefore it would make no difference in the wire ultimately chosen, whether direct or alternating-current methods were used. It would be, therefore, legitimate to use direct-current methods where the wire comes out smaller than the sizes shown on the charts.

There is also the case where the wire comes out larger than the sizes shown on the charts and, of course, the latter fail to indicate it. In these cases the in-

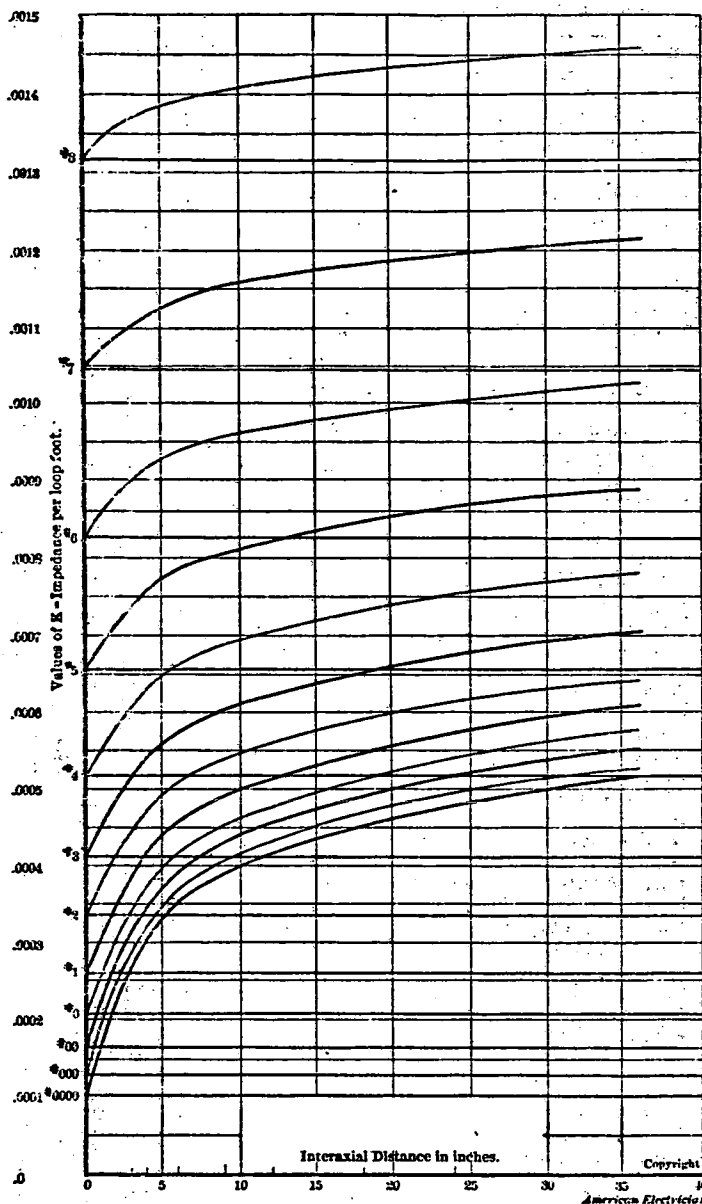


FIG. 2.—ALTERNATING-CURRENT CURVES FOR 15,000 ALTERNATIONS PER MINUTE.

ductance forms so large a part of the total impedance of the circuit that it will not pay to try to reduce the latter by reducing the resistance. The drop will have to be endured or neutralized by other methods. Impedance can only be profitably reduced by reducing the resistance within the limits shown on the charts, and many contractors would hesitate to use some of the larger sizes demanded there, but would prefer to submit to the larger drop.

Following are three problems that cover all possible cases.

Problem 1.—Line loss assumed, 5 volts; current to be carried, 5 amperes; distance to be transmitted, 50 ft.; interaxial distance, 10 ins.; frequency, 15,000;

$$\frac{5 \text{ (volts)}}{5 \text{ (amperes)}} = 1 \text{ (ohm per foot)}$$

It is easy to see at a glance that .02 is a number far too large to be on the chart. It represents a wire of an impedance of 10 ohms per thousand feet and would be about No. 20 wire by direct-current rules. The insurance rules would demand the use of No. 14, for they al-

low nothing smaller, and that settles the matter as far as interior wiring is concerned.

Problem 2.—Line loss, 2 volts; current to be carried, 200 amperes; distance, 200 ft.; interaxial distance, 24 ins.; frequency, 15,000;

$$\frac{2 \text{ (volts)}}{200 \text{ (amperes)} \times 200 \text{ (ft.)}} = \frac{1}{20,000} = .00005$$

With .00005 as an ordinate and 24 as an abscissa a point is indicated which is far from any curve. If the chart was continued to wires of resistance so low that the origin of the curves was nearly to the zero point, thus indicating a wire of nearly zero resistance and, of course, of immense size, yet the curve corresponding would arch high over this point. If such a problem should arise in interior wiring, which is extremely unlikely, the conditions could not be complied with. It would be impossible to construct a line that would produce these results.

Problem 3.—Line loss, 4 volts; current to be transmitted, 50 amperes; distance to be transmitted, 100 ft.; interaxial distance, 10 ins.; frequency, 15,000;

$$\frac{4 \text{ (volts)}}{50 \text{ (amperes)} \times 100 \text{ (ft.)}} = \frac{4}{5000} = .0008$$

.0008 plotted vertically and 10 plotted horizontally locate a point very near No. 5 wire, the proper size to use. This is a problem that could easily arise in interior wiring.

It would be easy to find cases, as I have done, that come beyond the range of the chart, but the wires thus called for will either be so small that direct-current rules will find them as accurately as alternate-current rules, or so large that no properly laid out installation would demand them. The reader who makes up such problems to test the value of the curves should readily see the reasons why the curves do not respond.—American Electrician.

#### AGREEMENT.

This agreement, made and entered into this, first day of April, 1897, by and between St. Louis Electrical Exchange, party of the first part, and Local Union No. 1, of the National Brotherhood of Electrical Workers of America, party of the second part.

Witnesseth: That the parties hereby agree to and with each other as follows:

1. Eight hours shall constitute a day's work—from 8 a. m. to 12 m., and from 1 to 5 p. m. In winter, men may take half an hour for dinner and quit work at 4:30 p. m.

2. In going from the shop to his work, or from his work to the shop, a wireman shall receive from his employer the necessary car fare.

3. A wireman shall commence work on a job at 8 a. m. unless required to report at shop for material or orders. In such cases he shall report 30 minutes before 8 a. m. at shop.

4. All over eight hours per day, and night work, shall be paid for at the rate of time and one-half; for Sundays and legal holidays double time shall be paid.

5. The legal holidays, for the purposes of this agreement, shall be New Year's Day, Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day.

6. The minimum rate of wages for journeymen wiremen shall be \$2.50 per day. A journeyman who is recognized

as foreman, shall receive not less than \$3.00 per day.

7. Wages shall be paid every week.

8. Contractors shall furnish tools for conduit work, and also drills and bits over eighteen inches in length, when such are required on a job. Journeymen to be responsible for tools taken from shop.

9. All journeymen will be held responsible for work they may perform and will be obliged to rectify all mistakes made by them on their own time.

10. No journeyman shall contract to do any work that should properly belong to the parties of the first part, and no contractor shall do journeyman work, unless there are two or more active members in the firm; in such case a member of the firm, not the recognized head, may work on a job, but he must be an honorary member of the Union and carry a working card.

Upon proof being established of violation of the above, said journeyman or contractor shall be fined not less than \$5.00 nor over \$20.00 for the first offense, and if found guilty the second time shall be expelled from the Union or Exchange or both, as the case may be.

11. No contractor shall employ at any time more than one apprentice or helper to two journeyman wiremen, but when only one journeyman is employed, he may have a helper.

12. A boy starting to learn the trade shall serve one year as helper, and at the expiration of that time, if of good character, shall be admitted to the Union as apprentice, providing he has attained the age of 17 years.

13. Apprentices shall not be allowed to finish work in any branch of the trade under two years of service.

14. When an apprentice has completed his third year, he shall be examined by the Examining Board, hereafter provided for, and if found competent, shall be promoted to the rank of journeyman and shall not again work for less than journeyman wages.

15. An Examining Board, consisting of two members of the Union, two members of the Exchange, and a fifth man, chosen by these four, who must be a practical electrician, not a contractor or in any way connected with the Exchange or the Union, is hereby authorized. The two members selected by the Union shall be considered as having passed the examination.

Each applicant for examination shall pay \$1.00. Revenue thus derived shall be divided equally between the Exchange and the Union.

16. The Examining Board must meet within one month after this agreement is signed, and once a month thereafter for three months, after which the meetings shall be quarterly.

17. All wiremen employed at present or hereafter employed by the Exchange must appear before the Examining Board and pass examination. The grades shall be Foreman, Journeyman, Third-year Apprentice, Second-year Apprentice. A wireman who fails to pass in the grade he stands for, shall be put in such grade as the Board thinks he belongs; but if he has worked three years at the trade, he has the privilege of trying the examination again at any regular meeting of the Examining Board.

18. A card signed by the Chairman or Secretary of the Board, shall be issued

to each wireman examined, showing his rating, and this card, together with the Union working card, shall be demanded of all wiremen.

19. No non-Union wireman shall be newly employed by the members of the Exchange (party of the first part) after the date of this agreement, but the state of labor as it exists to-day shall not be affected until May 1st, 1897, when the party of the first part agrees that all men in their employ shall be Union men in good standing, members of the party of the second part, and the party of the second part agrees that it will not permit members of the Union to work for any firm or individual contractors who are not members of the Exchange.

20. Any non-Union men now in the employ of the party of the first part shall be admitted into the Union without penalty, and for an initiation not exceeding the rate existing upon March 1st, 1897, and the parties of the first part agree to admit all Electrical Contractors to membership in the Exchange at the present rates until May 1st, 1897.

21. This agreement shall apply on all work within a radius of 15 miles from St. Louis Court House, and shall continue in effect for one year. Any refusal to renew this agreement for the next year, or if any change on either side affecting this agreement is contemplated by either party hereto, such party shall give to the other party three months' written notice, containing detailed information in relation to such refusal or change.

22. In case of any claim for breach of contract on either side, such claim shall be presented to the other party in writing, and the question of whether a breach of contract has been committed shall be immediately submitted to arbitration, each party hereto choosing one arbitrator, and these two a third.

23. In case the claim for breach of contract be sustained by the Arbitration Committee, the party committing the breach of contract shall immediately pay to the other party hereto, as liquidated damages, a sum to be agreed upon by said Arbitrating Committee.

24. It is hereby further agreed that no change in the rate of wages, namely, \$2.50 per day for journeymen, nor in the hours constituting a day's labor (eight hours), six days per week, shall be asked for by either party, except the change to take place on the first day of May in any year, and not then unless notice is officially given in writing ninety days preceding by the party asking for such a change.

25. Neither party hereto shall do any act discriminating in any way against any member or applicant to either body, due to any action in the past.

This agreement shall go into effect May 1st, 1897.

ST. LOUIS ELECTRICAL EXCHANGE, Per

Local Union, No. 1, St. Louis, National Brotherhood Electrical Workers of America, Per

Camden, N. J.—City Engineer Farnham has presented his report to the Lighting Committee of the Common Council in regard to the cost of a lighting plant for the city. His estimate for a plant consisting of 1,000 arc lights and 10,000 incandescent lights, including buildings and machinery, is \$710,000.



OFFICIAL JOURNAL OF THE  
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PUBLISHED MONTHLY.

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AS THE ELECTRICAL WORKER reaches the men  
who do the work and recommend or order the  
material, its value as an advertising medium can  
be readily appreciated.

St. Louis, Mo., April, 1897.

W. N. GATES, - SPECIAL ADVERTISING AGENT,  
29 Euclid Avenue, CLEVELAND, OHIO.



In answer to the announcement made  
in the last issue of the "Worker," we  
have heard from ten cities, all of which  
we hope to see organized in the near fu-  
ture. Keep up the good work.

With this issue three Press Secretaries  
make their initial bow, introducing three  
unions to our readers for the first time—  
Syracuse, Pittsburg and Erie. It is need-  
less to say they will be welcomed by  
their brother Press Secretaries on the  
staff of the "Worker."

Senator Allen of Nebraska has intro-  
duced a bill in the United States Senate  
to repeal the civil service law and all  
supplementary acts; and also to annul  
all executive orders based on these laws.  
We are much surprised that the Inter-  
national Typographical Union should ap-  
prove this bill. Bro. Prescott must be-  
lieve with Andrew Jackson that "to the  
victor belongs the spoils." We can un-  
derstand why Mark Hanna should favor  
the repeal of the civil service laws in  
order to reward his shouters in the last  
campaign, but where does the I. T. U.  
come in?

It is reported that M. M. Garland, Pres-  
ident of the Amalgamated Association of  
Iron and Steel Workers and Fourth

Vice President of the A. F. of L., is slat-  
ed for Commissioner of Immigration for  
the port of New York, to succeed Ed-  
ward McSweeney of the Lasters' Union.  
Bro. Garland has always been an ardent  
Republican and a believer in high tariff,  
and if he secures the position so ably  
filled by Edw. McSweeney, it will be a  
just recognition by the present admin-  
istration of the Amalgamated Associa-  
tion of Iron and Steel Workers' advo-  
cacy of high tariff.

Apropos of the Trans-Missouri decision  
of the Supreme Court, our Labor Unions  
should act cautiously, and not assist  
their natural enemy, the trusts, as it  
will be noted that corporation attorneys  
and the capitalistic press, since this de-  
cision, have been very friendly to labor  
organizations, intending, no doubt, to use  
them to pull the chestnuts of monopoly  
out of the fire, by telling the laboring  
people that the decision of the Supreme  
Court is a blow in disguise at organized  
labor. Organized labor will find itself  
in bad company, and will get the worst  
of it if it listens to the mouthpieces of  
monopoly, now that the Supreme Court  
has touched a tender spot where they  
least expected it.

Two unions have been added to our  
roster during the past month—Erie, Pa.,  
and Des Moines, Ia. Erie started in  
with 21 charter members and was or-  
ganized by Samuel Weiss, Organizer of  
the A. F. of L., and editor of "The Peo-  
ple." He deserves much credit for his  
work in organizing Erie, for all previous  
attempts were futile, although so great  
an organizer as Henry Miller had made  
the attempt. Des Moines has been or-  
ganized by the efforts of some of the old  
members of No. 55, who have come to  
the conclusion that life is not worth liv-  
ing without a union. With their past ex-  
perience to guide them, there is no rea-  
son why the new union in Des Moines  
should not be a success.

Safes are not safe. At least this is the  
conclusion reached by Lieut. Samuel Rod-  
man, Jr., in a recent issue of the Ameri-  
can Electrician. Until recently safe man-  
ufacturers had only to contend with high  
explosives, but now the up-to-date bur-  
glar has brought the electric current in-  
to service, and holes can be fused  
through any safe with astonishing rap-  
idity. Connection may be made with an  
electric light wire, or a street railway  
line, or a storage battery may be placed  
in a room or building convenient to the  
one to be burglarized. The kit required  
is a small and simple affair, consisting  
of a coil of wire, a resistance box, and  
an arc light carbon. With this outfit  
holes have been made through 3-12  
inches of metal in from three to five  
minutes.

We call attention to an announcement  
by Bro. Robert G. Wright in another col-  
umn. Bro. Wright was a charter mem-  
ber of Union No. 81, of Fort Worth, Tex.,  
and was Fin. Sec'y. from the time the  
Union was organized, in August, 1894,  
until he left the city, in August, 1895,  
going to Denton, Tex., for the Telephone  
Co., in which city he was seriously in-  
jured a few months later by falling 57  
feet.

With great difficulty Bro. Wright has  
written "A Portable Climax," which is

in itself an interesting story, well worth  
the price asked, if it had no higher claim  
on our sympathies, but when combined  
with this we have an opportunity to aid  
a deserving brother in sore distress, no  
member of the N. B. E. W. should fail to  
purchase one of the books.

The post office department has ruled  
that it is unlawful to attach a boycott  
paster on a letter. This ruling was oc-  
casioned by a letter mailed at St. Louis  
by an officer of a local labor union. On  
the envelope was a small pink paster  
boycotting the Armour Packing Co. of  
Kansas City and Chicago. The letter  
was stopped by the post office authori-  
ties, and held pending the receipt of in-  
structions from the department at Wash-  
ington. The reply was to the effect that  
a letter containing the pasters described  
was a clear violation of the law prohib-  
iting the sending through the mails of  
any matter calculated to reflect inju-  
riously upon the character or conduct of  
another. The letter was accordingly re-  
turned to the writer, who will not be  
prosecuted this time, in view of his evi-  
dent ignorance of the law, but any fu-  
ture offenders will be severely dealt  
with.

The Boot and Shoe Workers' Union of  
Stoneham, Mass., has issued an appeal  
for financial aid for the three hundred  
shoe workers locked out by T. H. Jones  
& Co.

It has been the custom of this firm to  
make prices with a representative of the  
union for the past fourteen years, but  
now, thinking that the condition of busi-  
ness and the labor market favorable, has  
attempted to crush the life out of the  
Boot and Shoe Workers' Union by clos-  
ing the factory, discharging all their em-  
ployees, posting a reduced price list, and  
positively refusing to employ their old  
help except as individuals at the reduced  
price. This occurred eleven weeks ago,  
and the union having now exhausted all  
its resources, calls for assistance. The  
fight is for principles that are vital to  
organized labor, namely, recognition by  
the employer and the right to organize  
for mutual protection. Contributions can  
be sent to E. J. C. McKeen, Box 168,  
Stoneham, Mass.

Six months ago any person who dared  
question a decision of the Supreme  
Court was called an anarchist and all  
kinds of epithets were hurled at Bryan  
and his followers for questioning the in-  
come tax decision. The plutocratic press  
then held that the United States Supreme  
Court was something sacred, but the  
shoe pinches the other foot, and now  
the same corporation organs are breath-  
ing "treason," and when corpora-  
tion organs become anarchial they do not  
mince words. The Hartford "Times,"  
published in the stronghold of trusts as  
their organ, refers to the recent deci-  
sion of the Supreme Court in the Trans-  
Missouri decision as follows: "The Su-  
preme Court of the United States was  
constituted as a final authority in mat-  
ters of law, but when it comes to all-  
round reasonableness of affairs, in gen-  
eral, there are several million more of us  
who are quite as competent to determine  
'what is what' as the nine gowned gen-  
tlemen on the supreme bench at Wash-  
ington." Quite a change in sentiment  
since November 3d.

## LABOR AND THE ANTI-TRUST DECISION.

It is a curious, but not wholly inexplicable phenomena, that the loudest protests against the recent anti-trust decision of the United States Supreme Court as a blow at labor unions come from railroad attorneys who have systematically fought labor organizations, or from newspapers which have habitually defended trusts. And it is a very impressive evidence of the thorough discipline of all the forces which go to create, maintain and defend combinations in restraint of trade, that so swiftly after the decision against the Trans-Missouri Association the plan of campaign should have been formed, and all over the United States the wrongs of the workman should be seized upon as the wedge with which to break into Congress.

Within thirty days the very railroads which ever since the futile strike of the American Railway Union have kept active union men on the blacklist will have their agents out seeking to prove to union men that the integrity and permanence of organized labor are dependent upon Congressional action for the repeal of the law upon which the anti-pooling decision rests. Not only will the shrewdest corporation lawyers and the most unscrupulous corporation newspapers be employed to this end, but workingmen must expect to find members of their own organizations suddenly appearing as defenders of railroad combinations and corporate monopolies.

The "Journal" would suggest to the members of labor unions extreme caution, lest they find themselves used to pull the chestnuts of monopoly out of the fire for monopolists who will never divide the prize.—New York Journal.

The National Brewery Workers' Union has issued a circular in regards to the difficulty existing among brewery workers in Rochester. The circular has the following postscript attached: "The above matter having been submitted to the A. F. of L. it has received full consideration and approval and all labor is urged to support the National Brewery Workers' Union in its just cause.

SAM'L GOMPERS,  
President A. F. of L.

FRANK MORRISON, Sec'y.

## THE POSTAL IN ARKANSAS.

Editor Electrical Worker.

As I see nothing in the March Worker from the State of Arkansas, I thought I would send in a few lines myself from the land of bull frogs and mosquitoes.

I am with the Postal Telegraph Co., building a new line between Clarendon and Pine Bluff, along the Cotton Belt Railroad, and have built through water all the way, from knee deep to over your head. Bros. Hatt, Cunningham and Henning are all running gangs here. Also Bro. Edmondson, of No. 18. Bro. Hatt left here for Dallas, Tex., last week. I hope he gets to work in a better place than where he left.

There has been quite a number of line-men through here looking for work, but as this company only allows five line-men in each gang, we could not put them all to work. I think times must be pretty close all over the country when men come to Arkansas for work. But as I have a job here, and don't know of

one elsewhere, will try and hold it down until times get better, if the malaria don't get me. S. W. McORACKEN.

Wabbaseka, Ark.

## A CARD OF THANKS.

Local Union No. 75, N. B. E. W.:

Dear Friends: Kindly accept my ever grateful thanks for your kindness to my husband and myself during a little spell of illness. Your prompt response and careful attention proved you brothers in deed as well as in name. In such brothers one feels there are true friends to whom one may turn and trust.

Long live the N. B. E. W. of A. May God bless you, one and all.

MRS. E. BEATRICE L. WILLIAMS.  
Grand Rapids, Mich.

## BROTHERS, READ THIS.

Fell 57 Feet—Still Living, But Badly Crippled.

No doubt a good number of the brothers have forgotten that such a man or being as myself ever existed. But when I tell them that I have been an invalid for nearly seventeen months, they will understand better why I have not been heard from. On the night of Nov. 20, 1895, misfortune overtook me, and I will probably never be able to do any more work to earn my daily bread. I fell a distance of 57 feet, and struck on my back, dislocating my spine in two places, and as a result have been paralyzed ever since from my shoulders down, and as what little means I had has long since been exhausted, I have composed a small book, which I have succeeded in getting published, and am now offering for sale at 50 cents per copy. Now, brothers, I appeal to you to lend me "a helping hand," as I have a wife and a little girl to support, and am without means, and physically helpless. My only refuge is through the sale of this little book. If the brothers of the N. B. E. W. alone would each buy a copy of this little book, I could pay for the publishing of it, and have enough money left to get me to the surgical hospital and have an operation performed on my spine, which my physicians say will have to be done before I can obtain any relief whatever.

This book is confined to the application of electricity with the wind forces, and, in brief, is a story of the invention, and contains 152 pages. Now, brothers, let each one of you place yourself in my condition—physically helpless, with a wife and child, and no means with which to buy the bread you eat. Is it not distressing? Brothers, you can never realize the depths of this awful affliction unless you were thus situated. I truly hope that every brother who reads this will be able to realize the gravity of my case and send to me for one of my books, which I will mail to him promptly. Now, brothers, who will be first to respond? My address after the 15th of April will be at Fort Worth, Tex., and while I am badly crippled, and received an awful fall, still the blow failed to knock any of the "Union" properties out of me.

Hoping for the day when my sky will be more clear, and with best wishes for every member of the Brotherhood, I am, fraternally and gratefully your afflicted brother,

ROBERT G. WRIGHT,  
Denton, Tex.

## FROM OUR UNIONS.

### ST. LOUIS NOTES.

Electrical work in St. Louis has improved but slightly during the past month. We notice, however, during the last few days there are not so many of the boys lounging around the reading room. This is a sure indication that more of them are getting to work each day.

The only large jobs of inside wiring going on at present are the Century building and Liggett & Myers' new tobacco factory. All the men are working on these jobs that will probably be put on, which has been somewhat of a disappointment, as it was expected that a larger force would be employed, thus giving a chance to some of our boys, who have lived on snowballs and hope during the winter, to get a change of diet.

The Kinloch Telephone Co. has a large force at work digging up streets and laying conduits. The work so far has all been done by laborers, who receive, we understand, the munificent wages of \$1.10 per day. The Bell Telephone Co. has not started work yet on its underground system. Can it be possible that the Kinloch people are building to sell out to the Bell? The boys will be suspicious of the Kinloch Co. until it starts to build its exchange and string wire.

The Missouri Electric Light and Power Co. put on several gangs during the past month. These were gangs that were laid off after Mark Hanna's prosperity arrived last November. The St. Louis Light and Power Co. and the Suburban Railway are also doing some work, but there is no prospect for a rush in the immediate future.

The Edison Illuminating Co. of St. Louis has been undergoing a reorganization for several weeks. In accordance with the plan of reorganization the bonded indebtedness of the company will be reduced from \$4,000,000 to \$2,000,000, and the capital stock will be reduced from \$8,000,000 to \$4,000,000. The reorganizing committee has called in all bonds, and have issued trustee certificates, which, in turn, will be exchanged for bonds of the new company after the reorganization is effected. Of the four thousand \$1,000 bonds, 3,966 were returned leaving only \$34,000 of holdings unaccounted for. About 3,600 shares of the stock are still outstanding. The holders of the stock deposited \$3 with each share returned, and in exchange will receive half as many shares of the common stock of the reorganized company.

The date of the sale of the property has not yet been set. Under the law, 30 days must elapse between the order and the sale. At the end of that time the reorganization committee will buy in the property for the bondholders.

For the benefit of the old members, who have not been here for a number of years, it might be added that the Edison Co. is the successor of the Municipal Co., which put in the street lighting system of St. Louis in 1889 under the contract secured by Chas. Sutter a year previous. Bids are now advertised for lighting the city for a term of years, and it is presumed the reorganization of the Edison Co. has something to do with the next city lighting contract.

About a year ago Union No. 1 started

in to unionize this city. During the early part of last summer we succeeded in getting in nearly all the inside wiremen, and for several months after the cyclone took in a large number of linemen, but as soon as the rush work caused by the cyclone was over there was a general lay-off, by all companies, and more than half our linemen were forced to leave the city to seek work elsewhere. The companies continued to reduce their forces, until by January 1 there were fewer linemen at work in St. Louis than at any period in its history since the general introduction of electricity. This, of course, interrupted the progress of No. 1, and it was a struggle royal to hold its own, and much credit is due to the officers and hard-working members of the union, or it would have received such a set back that it would require the greater part of the coming season to regain lost ground without making any advance, but now we are in a position to take up the work where we left off last fall and order a forward march.

Several times since No. 1 was organized attempts have been made to come to some agreement with the contractors which would be mutually beneficial both to the contractors and journeymen. Committee after committee was appointed by the union, but no progress was made. Last fall a new committee was appointed, which proves the truth of the adage, "If at first you don't succeed, try, try again." The committee, at our last meeting, presented its final report in the shape of a contract signed by the Electrical Exchange, and thus the bickerings of five years are at an end, and we can look for a gradual improvement in the condition of the electrical business in St. Louis.

Too much praise cannot be given to the committee for the hard and persistent work done under the most discouraging circumstances. It was necessary day after day to chase after contractors and explain to them the benefits that could be derived from a recognition of the union and the employment of none but union men. Gradually we succeeded in getting one contractor after another interested, and finally secured their signatures to a preliminary agreement, with the understanding that we were to meet with all the contractors in the city in a joint meeting as soon as arrangements could be made.

The contractors of St. Louis organized an association known as the Electrical Exchange about six years ago. When it was first organized we tried to come to an understanding with it, but received a cold reception, as the contractors thought at that time that they could ignore entirely the Journeymen Electrical Workers. The Exchange continued its existence up to the present without accomplishing anything toward improving the condition of the electrical trade, but, on the contrary, received a knock-out from the St. Louis Board of Fire Underwriters greater than that received by Corbett at Carson City. The dues paid by the members were used to give an annual blow-out in the form of a banquet at the Merchants' Exchange. The last banquet, given in January, was said by the daily press to be modeled after a certain dinner given in New York. At any rate, after the banquet, it was almost impossible to find a contractor who would acknowledge that he was a mem-

ber of the St. Louis Electrical Exchange. This was another one of the stumbling blocks encountered by the committee. It was necessary to organize the contractors.

The electrical business in St. Louis is in a deplorable condition. So long as contractors persisted in hiring boys, while good men were walking the streets, these men did the only thing it was possible for them to do, namely, take contracts for themselves, until competition became so great, and the number of contractors had increased to such an extent that it was almost impossible to get any price for work, and consequently wages suffered. During the past winter shops that hired union men and paid our scale, found it impossible to secure contracts, and of course they could not employ many men, although their expenses for rent, taxes, etc., were running the same as before, and this notwithstanding the fact that the inspection department of the Board of Underwriters showed that as much work was done during the past six months as in any similar period in the history of St. Louis. The work was done by boys or small contractors, who had no shop, and did all their own work.

We think the agreement which we have made with the electrical contractors of St. Louis, which goes into effect on May 1st, will do much towards remedying the evils above referred to, and that in one year the condition of our trade will be improved to such an extent that it will be possible to raise the ante, and that by mutual agreement, without the slightest friction. We publish the agreement in full, as it may contain points that will interest our brothers in other cities, and be of assistance to them in securing similar agreements: **ELECTRON.**

#### UNION NO. 5, PITTSBURG, PA.

I presume you require a few words from No. 5 for your union columns. There is a familiar saying that a new broom sweeps clean, which No. 5 is doing, and let us hope that she may continue to do so, and that she may never know of any end to success. We, No. 5, are now in our infancy, but we are nearly 60 strong, and expect to have a large number to take the obligation next meeting night, April 5th. We have unanimously decided to give a smoker, and we will issue invitations and distribute them among the electrical workers of the city, and expect to entertain them with vocal and instrumental music, and some good orations appropriate for the brotherhood. After sowing the seed we are expecting a good harvest.

Our brother unionists will be pleased to hear that the three largest jobs in this city are being done exclusively by the N. B. E. W. men, viz.: Henry Hotel, 1,600 lights, armorite tubing; Lincoln School, and the Wallan office building, and although they may not be all paying a fixed scale of wages, let us hope for success, and not be too avaricious, as, in my opinion, that is usually the cause of the failure of unionism.

Some of our brothers have received the "Electrical Worker" this month, as well as last, and have asked whether or not this paper is sent gratis to all members in good standing. A few lines in your editorial column will enlighten them on the subject. I think that if the paper

was sent to all members it would be a great help, as it keeps the electrical union question running through their mind. **AL. E. ELDRIDGE, Press Sec'y.**

#### UNION NO. 9, CHICAGO, ILL.

Since my last letter prosperity has struck Chicago (nit) in this way: The Chicago City Ry. is going to build as much as four blocks of electric road, which will take Joe Baker, with four men, about three hours. When this is completed they say they will do no more construction this year. The North Chicago Ry. Co. say they will do no construction this year, so the outlook for linemen in Chicago is very gloomy at present, and if any of the brothers are thinking of coming this way for work, I advise them to stay away, as there is nothing doing and no prospect of anything. Our brothers have scattered to the four winds of the earth. They fed on the hope of prosperity all winter, and have given up in despair. McKinley has taken his seat, and I think he has bit off more than he can chew of the tariff bill—for a start, anyway. The first thing is to take care of monopoly; the last consideration perhaps is, "take care of the labor."

I am glad to know that at least two of the upholders of scab labor had their noses twisted out of joint in the McKinley Cabinet. Payne, the Milwaukee street railway magnate is too well known for me to say anything regarding his attitude towards unions, and his love for scabs. The other, Col. Harrison Gray Otis, editor of the Los Angeles "Times," another lover of scabs, who employs nothing but non-Union men on his dirty sheet. "Col." The people of the coast have been trying for years to find out how or where he earned that title, but have not as yet been able to do so. Perhaps McKinley could explain; they fought together in the war. But if he did not make a better soldier than he did when Debs attacked him in an open hall in Los Angeles in 1894, I pity him. He sat in the audience as mum as a clam and took Debs' abuse, for he knew Debs was right, and he did not dare come on the stage and debate when he was challenged. If I had been in Otis' shoes the night I heard Mr. Debs roast him in Los Angeles (his own town) I would have prayed for the earth to open up and swallow me and get me out of sight. A local paper states it is not because the Typographical Union opposed him, but he would have been unacceptable to Secretary Alger on account of his geographical location. I suppose the writer meant he was next to being off the earth, as it were.

The following may be of interest to some of the brothers: It is unlawful for an employer to exact an agreement, either written or verbal, from an employee, not to join or become a member of a labor organization as a condition of employment in California, Indiana, Idaho, Massachusetts, Minnesota, Missouri, New Jersey, New York and Ohio. The street railway employees of Toledo, Ohio, have adopted a resolution pledging the vote of every member to those candidates for the City Council who favor the municipal ownership of street railways. This is on account of the trouble they had with the company recently. At Council Bluffs, Iowa, the Board of Aldermen, with but one dissenting voice,

passed an ordinance directing and requiring the use of the union label on all matter printed. If we could get the city officials on our side they could do us more good than all the people on the outside, and there is no reason why we could not get them, as the support of the central labor bodies is worth a good deal to a man running for office.

I think our worthy president, Frank Silder, has left us, as he did not show up at our meeting last night, and Frank never fails if he is in the city. He expected to go to Mexico, but I am not sure whether he has gone or not.

A. McFARLANE, Press Sec'y.

#### UNION NO. 17, DEROIT, MICH.

This is the last letter to our journal that I may write, as I have been fortunate enough to get an appointment from the United States Lighthouse Board to a lightship at Port Huron, and will take up my duties April 1st.

That No. 17 is growing rapidly can be seen from my former letters. At our meeting two weeks ago, we initiated eight new members, and two more were brought into contact with our "ambiguous goat" on the 16th.

We have a member of No. 17 who is willing to sit up all night to explain the benefits of unionism to an electrical worker. A more untiring member could not be found than Bro. Geo. Harrison. Through his efforts there were given to the Recording Secretary twenty applications with accompanying initiation fee. That the members of No. 17 appreciate Bro. Harrison's efforts was shown at our last meeting, when he was voted unanimously an emblematic badge, the best that could be had. We have at present on file twenty-nine applications.

Bro. Hawes has been sick for two weeks with malaria, but is out again and able to do light work. He had a close call.

With this, my last letter to the journal, I take great pleasure in introducing my successor, Bro. Thomas Forbes, an old member of No. 17, and ex-President, who will, without a doubt, fill the Press Secretaryship to the letter. As for myself, all I can say is, I have tried.

I am soon to leave the Brotherhood and No. 17, but I sincerely hope that for the one going out there will be fifty coming in. It is with feelings of regret that I have to leave the many friends that I may have made among the brothers, and I wish to thank them all for their many acts of kindness and friendship. I shall always be interested in the Brotherhood, and No. 17 especially, and will always be glad to hear of its progress. So good-bye, boys, we may meet again some day.

L. H. BEAMER, Press Sec'y.

#### UNION NO. 22, OMAHA, NEB.

We believe there has not been anything from No. 22 in the WORKER since December, but we have at last awakened from our lethargy enough to let the other locals know that we are not dead, but have been enjoying (?) a profound sleep. Perhaps it was the news of the Fitz-Corbett fight which aroused us. We cannot say as to that, but it came as a surprise to most of us, but we are glad that they have at last settled the championship, and perhaps they will let it rest for awhile, and let prosperity have a chance to get in its work.

But for news: Bro. Wales and your

humble servant have just about finished wiring the Creighton Medical College, and we will have a job at the Schlitz Roof Garden, but that will not last long. Bros. Longspirey, Ashmussen and Vean are going to re-wire the Union Pacific shops as soon as the material shows up, and that seems to be about all the work that is in sight. Our worthy President, J. J. Dooley, has gone to Grand Island, Neb., to run the plant there. Success to you, brother. If we had more like you in our ranks we would be none the worse off.

No doubt a number of the boys in different places are intending to steer towards Omaha this spring or summer in the expectation of getting work on the Trans-Mississippi Exposition, but let me tell you, one and all, that it would be a fool's errand, and barren of results, from the fact that the site for the Exposition has not been fully decided on as yet, and there will be no prospect of electrical work of any kind before October, so you will readily see the folly of building any air castles on the foundation of the Trans-Mississippi Exposition. While we will extend every hospitality to any brother who chances to come among us, we cannot help him to a job, for the reason that at present there are not jobs enough to go round, and as Bro. Wales says, "We have had enough work helping ourselves."

We are glad to welcome the two new Unions, viz: 72 of Waco, and 46 of Lowell. Both places are the homes of literary talent, and we shall hope that some of it will find its way into the WORKER. Incidentally we hope that the Waco local does not contain any of the roasters for which Waco is noted, of whom W. C. Brann, editor of the "Iconoclast," is the king.

If any of the brothers have read his account of the Bradley-Martin "function," held in the Waldorf, New York, recently, they will certainly hope that the energy of the brothers of No. 72 will be expended in some other lines of thought than those pursued by Brann, especially if turned against unsuspecting members of the Brotherhood.

MART T. CASTER, Press Sec'y.

#### UNION NO. 26, WASHINGTON, D. C.

Local Union No. 26, Washington, D. C., meets every Monday evening at 628 Louisiana avenue. Jos. Patterson, Pres., 1127 Twelfth street N. E.; R. F. Metzel, F. S., 509 Eleventh street N. W.

The above notice will call attention to the fact that No. 26 has moved. Boys, you will notice that it is the rolling snowball that gathers the moss," and the stones (rocks), too, for that matter. Well, despite the hard times, No. 26 has taken another step forward and upward. Our new hall is 35 feet wide by 115 feet long, in which we have erected three partitions, making our large meeting hall capable of seating 150 people; our ante-room, with lockers and cupboard, and room to accommodate fifteen candidates; our committee room 15x20 feet; and a club room, with everything to make the members comfortable and enjoy themselves. Absolutely no liquor, but plenty of cigars, tobacco and H. O. on tap. We sub-rent our meeting hall to the Building Trades Council, Painters and Decorators' Union, Plasterers' Union, Steam Fitters' Helpers, Pavers' Union, Bakers' Union, Carpenters' Union, and the The-

atrical Mechanics' Union. The rooms that we just left we found to be inadequate for our purposes, hence the move. However, we would not have moved quite as soon as we did, but for the fact that Mr. Marshall, the landlord, who is a very estimable gentleman in every way, except one, opened a breach between us by employing some non-Union men to make some repairs upon the hall for us, even after our request to him to employ strictly Union men, and, as usual, he not only lost us as tenants, but got an inferior job of work, which will have to be done over.

Your humble servant apologizes for being dilatory in furnishing a copy of the two following sets of resolutions, upon the death of Joseph E. Henry and Joseph Woodworth, as it was voted at a regular meeting that they should appear in the WORKER. I hope the editor will kindly give space in the columns of the WORKER for the following:

#### IN MEMORIAM.

Whereas, It has pleased God in His infinite wisdom to take to Himself our friend and brother, Joseph E. Henry; therefore, be it

Resolved, That in his death our Union has suffered a loss not readily repaired, for his genial nature, quick intelligence, and irreproachable character had made him a most valued and valuable brother; and be it further

Resolved, That while we bow with submission to the decree of the Allwise Father, it is with the deepest sorrow that we record his death, and it is desired that the charter be draped, and the officers wear their badges of mourning for a period of thirty days; and further be it

Resolved, That a copy of these resolutions be sent to the relatives of the deceased and his dearest friends; and also that they be spread upon the minutes.

H. E. KAIGHN,  
S. M. WILDER,  
R. F. METZEL,  
Committee.

#### IN MEMORIAM.

Whereas, It has pleased Almighty God to remove from our midst another brother, Joseph Woodworth, a kind father and husband; therefore, be it

Resolved, That this Union has suffered an irreparable loss in the death of Bro. Woodworth, a cordial friend and companion. Thou hadst a host of well wishers; and be it further

Resolved, That the charter of this organization be draped in mourning, the officers and members wear their badges reversed; that all members attend the memorial service; that a copy of these resolutions be sent to the sorrowing wife and family, and also be spread upon the minutes.

Brother, thy work is o'er,

Your time of probation run;

Your steps are now upon the untrodden shore.

The contest of immortals begun.

To the widow:

There is an hour of peaceful rest

To mourning wanderers given,

There is a joy for souls distressed,

A balm for every wounded breast,

'Tis found above in heaven.

M. O. SPRING, Committee.

#### NOTES.

In reading the account of the electrical illuminations in the "American Electrician," written by Mr. Deaton Bliss, an

error and an oversight are noticeably conspicuous, i. e., "These suspended lights were connected in sections at the laboratories of the Bliss School of Electricity, by regular students." Upon the authority of Bros. J. K. Vose, John Hoffacker and Will Beagle, who are regular employes of Mr. John R. Galloway, and who actually did the work on the aforesaid lights in the shop, I take this opportunity of correcting Mr. Bliss' statement, in which he undertook to give undue prominence to the school, and as he fails to mention the fact that the work was almost entirely done by members of No. 26, it leads those to think who read his article that it might have been the Bliss school boys who did all the construction work.

The Great Atlantic and Pacific Tea Co. were also decorated by the same members of No. 26, and contractor John R. Galloway. There were three hundred 8 c. p. frosted incandescent lights put in a border around the walls and in the ceiling, with six twelve-light electroliners, illuminating their double store as few places were lighted in the city.

Among the most noticeable outside illuminations one could readily see the taste and skill of one of, if not the most progressive contractor in the city of Washington. I refer to Bro. John C. Rau. Bro. Rau is still a stanch No. 26 man, and deserves great credit for his untiring energy; he is a hustler from the word go. You may meet him in almost any part of the city on his wheel with a great big Ruhmkorff coil (or some other koff coil) strapped to the handle bar, which he uses to test the work of his men's construction. Bro. Rau never uses the lame excuse that his men must have been careless, for he examines all the work himself, and knows that it is all right before the men are allowed to leave a job. Success to you, Bro. John.

I should like to say "howdy" to the brothers in Galveston, especially great big "Paine," only they won't know me here. M. O. SPRING, Press Sec'y.

#### UNION NO. 38, CLEVELAND, O.

We of No. 38 have been so busily engaged for the past 30 days that even your humble servant has had no time to inform the readers of the "Worker" of what is going on in labor circles in and about Cleveland. Thirty days ago we reopened our charter, determined that we would double our membership, and that we have succeeded in proof that if others will go about it in the right way success is sure to follow. What the men in our craft lack is complete organization all over the United States and Canada. A complete organization in one or two cities is of little value if there is no attempt to organize in other cities, because men are continually changing from one city to another looking for work, and while we might organize Cleveland to-day, next week there might be an entirely different class of men working here, while those who have joined the union have left for other cities, working or looking for work. And so it must be evident to all that we must all work together in one common cause, or the work which one local union accomplishes, be it ever so great in its own city, will avail little if others do not put their shoulder to the wheel. When we obtained permit to open our charter, we made a pledge among ourselves that

each and every member would bring in at least one new member, and with that object in view we started out, and although some have failed to bring in a man, others have brought in several, some as high as six or seven; so upon the average we have been able to obtain applications enough to double our membership. We have now secured an extension of 30 days, and, in the words of old Andy J., "By the Eternal," we propose to double 'em up again, and what is possible for No. 38 is possible in each and every local union all over this broad land.

In our experience in building up our local we find three elements with which we have to contend, viz.: Poverty, fear and indifference. When I speak of poverty, I mean that which haunts a man who depends upon his labor to supply him with the necessities of life, and is out of a job. When a man has only a dollar or two in his pocket, and is out of work, and not likely to get any, he is not likely to invest his last dollar in a local union when there is no surety of his obtaining work by so doing. It's a good deal like a man spending his last quarter for a money purse, but a majority of these men are all right when they get to work. They will join the local and be valuable members.

The second class are the men who are afraid of losing their jobs; fear that when the company or corporation they work for find that they are union men they will be discharged. This class has to be assured of protection, which (owing to the lack of organization among our craft), we are unable to give. When there are more non-union men than union men, a man feels a little skittish about risking his job by joining a union, and until we are better organized we will have uphill work in getting this man. About the best we can do with this class is to work them in quietly one at a time, and some day, if we do not get discouraged, we will be able to get them all.

The third class is the indifferent individual; the man who has no use for a union of any kind; who does not realize the fact that organized labor has both directly and indirectly benefitted him in the past; that whatever degree of prosperity, comfort and privilege he now enjoys in pursuing his daily vocation is due in part, if not in whole, to organized labor. It is with this class of men we have mostly to deal. He is a hard man to get, but if you will talk to him in a reasonable way, and not try to impress upon him that you are his superior in intellect (for many times you are not); if you stay with him, eat with him, live with him and sleep with him, if need be, sooner or later he is bound to come in, and once he is in, no man in the local is a better union man than he. His voice is heard long and often, and his actions proclaim that he wants nothing to do with anybody or anything that has not the union label, and in plain sight of everybody.

This is part of our experience for the past month. At the end of this month will let you know how we are prospering, and in the meantime would like to hear from some other locals. We don't like to brag, but we are not afraid to challenge any local union in the country, if we, on the 22d of April, cannot show a larger gain of new members this year than any local represented in the

"Worker," then I will give a box of 25 good union-made cigars to the press secretary whose local can show the largest gain, providing he will come to Cleveland to get them.

On the 5th of April the B. T. C. of this city will inaugurate the eight-hour day, and any man who is not a Union man cannot work upon a building upon which men affiliated with the B. T. C. are working. Any electrical worker who is not a Union man must cut bait or fish, and so with every other trade likely to be employed on any building. Contractors have been notified, and everything is ready. That it will be a success I have not a particle of doubt. We as a local union are giving them our support, and with the right kind of management, a working day of ten hours will be a thing of the past.

Most of the brothers are working. Bro. Mills, who was so badly hurt last fall, is slowly improving. Bro. Herron, who has been sick since January, is able to be around, and is looking quite well. Bro. Thomas, who has been in bed for a week, is also able to stir around. We are all looking for old prosperity, and have been for some time. He is not in sight yet. May be he will come, and may be he won't.

THOS. WHEELER, Press Sec'y.

#### UNION NO. 43, SYRACUSE, N. Y.

Since becoming a member of No. 43 I have looked through the WORKER for a letter from here, but found none. At our meeting last night, after making inquiries, I found we had no Press Secretary, our P. S. having resigned. I was elected to fill the office, which I shall try to do by letting our brothers of other locals hear from No. 43 each month.

Our Local is doing nicely, and we have all but two or three inside men, and these we will get, we hope, on next meeting night. We are recognized by the contractors, and hope in a short time to notify them of our scale, and then the boys will be able to enjoy a future of prosperity.

Work has not been very abundant here this winter, but the boys all look as though no snowballs were on their bill of fare, and we are in hopes now that the wonderful Wm. Mac of Ohio has taken the tiller, he will steer the ship to prosperity, start up our industries, and let the Salt City feel the effect.

We have as President Bro. Chadwick, and in him we find an earnest worker, and if some of our boys would follow his example and teachings we would be assured of as strong a local as the N. B. have, and that's what we are out for, for it is certainly a solemn truth that in union there is strength.

We had the pleasure of introducing a closed circuit to a brother last night, and hope that he will hustle and bring in some wanderer, to get even.

I see Bro. Graham of No. 44 is alive, and would also like to hear from No. 45. Let's see if we can't be heard from each month, and keep posted as to work in our respective cities.

B. T. DELAFIELD, Press Sec'y.

#### UNION NO. 45, BUFFALO, N. Y.

Our Union, the gallant No. 45, is still in the field and doing considerable work. The same good spirit predominates at each meeting.

The business outlook for this city and vicinity is anything but cheerful to the numerous unemployed. If things do not begin to brighten soon, the much talked of "spring opening" will be nothing but a myth. But cheer up; do not be discouraged. As the calm always precedes the storm, so this dull time may precede a time of much prosperity.

The Bell Telephone Co. of this city has adopted the "Barrett Selective System." The immediate result will be the elimination of the principal inconvenience which could not be avoided by the party-line system used previously.

The system will not work satisfactorily with business telephones, and so the whole city will not be benefited by the improvement.

The incorporation of a new electric railway out of Buffalo signifies that considerable work is to be done. The railway will connect Buffalo with East Aurora, Orchard Park, and Hamburg.

J. LODGE, Press Sec'y.

#### UNION NO. 52, DAVENPORT, IA.

We are sorry that we have lost some visiting members, who have been with us for some time past, among them Jas. Kane. Now I must stop and tell the brothers about "Dad" Kane, as he is called by the boys most familiar with him. Some of them say "Old Jimmie Kane," and I want you to know that he is a "Jimmie-Kane" in a Union. How proud we would be to claim him as a member of 52. When he first came here he walked all over our town-city, if you please—looking for "where the Union met." No one could tell him then, for we were like a man without a country. We had no home. Finally he did locate us, and how he did call us down for not showing our colors by wearing "buttons," so that a brother might recognize us, and as a result I was instructed to buy some buttons forthwith, thirteen being asked for at once. We deal in thirteens; started with thirteen members on the thirteenth day of the month. To say that Bro. Kane was pleased, is only putting it lightly. He is a Union man to the core, and No. 67, of Quincy, may well be proud of him. We parted with him with regrets, and we want him to know that we shall not forget him in a short time, nor the talk he gave us at one or two of our meetings, for he never failed to say something for the good of the Union. Bro. J. C. Woods and Bro. Frank Matten, also of No. 67, were quite often in our vicinity. Now that they are gone we begin to realize that we miss them, and can only say "God speed; if you ever come our way again you are sure of a hearty welcome, and you can have the best there is in the house." When we gave our dance in February, the boys all turned out—Bro. Kane and all—and helped us out in more ways than simply enjoying themselves, and No. 52 did not so much as tender them a vote of thanks. But we meant all right. We were a little "green" you know—thinking of March 17th—but we solemnly promise to do better next time.

We are in the midst of another political war—a city election this time—and it is labor and citizens against a political ring, which has run the city for many years, and if the future is to be judged by the past, woe unto the workingman

if the ring runs the city many more years. Our city fathers can go out of office resting assured that their names will go down to posterity via the "City Hall Club" route. I will add here that said route needs no advertising at this time, for we are all acquainted with it. Our city fathers may well be proud of their accomplishments, and what they have done for the "poor working man." I'll only mention one thing and that is that twenty-five year contracts for street lighting, the iron-clad contract, and also, that iron-clad ordinance some long-haired gentlemen (never) were required to sign; and how did you, city fathers, make those gentlemen live up to said ordinance and contracts. We would like to have some one to show us some of the latest improved machinery, lamps, etc., that were put in for lighting our streets. Where are those beautiful poles and all the "new hard drawn No. 6 wire" that was to be put up? How many of the old lamps that were up have been replaced with the "newest improved kind" that were so much talked of one year ago? Don't mention it; you might make some one feel sore. How many of those nice new machines are running to-night, with those "patent" regulators on? Maybe they have a patent on their regulator, but he is pretty cheap at \$6.00 a week, if I am not mistaken. We would like to know where they got their permission to put up three miserable, old, rotten, worn-out No. 12 and 14 wires, twisted together and hung on brackets, where we were supposed to have nice new No. 6 hard drawn, and put up in a workmanship manner. I challenge either a city officer or a member of the "gang" who have the contract, to show me any of their work that comes up to the specifications.

We would like to ask some member of the City Council why the city was not paid those heavy penalties and fines that are due them. Why those braggarts were not made to live up to their contract? Gentlemen, there is filth somewhere, and when it is unearthed an awful stench will go up to the sky. It may be uncovered.

Why was not the poor working man in it as promised before election? Is ten cents an hour or ninety cents for nine hours in it? and they discharge a man at noon and pay him 45 cents after working five hours, beating the "poor working man" out of a miserable nickle. So that is what some people call "a benefit." I have another name. It is worse than the sneak thief who steals into your house and robs you of whatever he can find.

There is much more that we would like to know, but space will not permit mentioning everything. Why is it that these "kind, large-hearted gentlemen," who were going to do so much for the city and the "poor working man" want nothing to do with Unions or Union men. Is it because one dollar and fifty cents a day will not satisfy a Union lineman that you are afraid of Union men? That is the reason pure and simple, you miserable hyenas. You are more to be despised than the sneaking jackals that snarl and fight over the carcass of a dead bull. You should be classed with vultures and buzzards. You take advantage of starving humanity to serve your purposes. You make atheists of Christians and anarchists of good citizens.

You may think I am bitter, brothers, but we have just cause to be bitter. You will hear from me again.

J. H. CLARK, Press Secretary.

#### UNION NO. 56, ERIE, PA.

We are just a new electrical Union, starting in with twenty-one of the boys who are never afraid of danger. We expect to get in several more at our next meeting.

The following clipping is from one of Erie's Sunday papers:

#### ELECTRICAL WORKERS' UNION.

An enthusiastic meeting of electricians was held at Cigarmakers' Hall on Wednesday evening. President Gilmore occupied the chair. There being many new faces present, the Chair asked the Organizer to make a few remarks on trades unionism, which he cheerfully complied with. Five electricians signed their names to become members of the union. Additional officers were elected, and the whole set is:

President—E. F. Gilmore.

Vice President—Wm. Crane.

Financial Secretary—J. P. Hanlon.

Recording and Press Secretary—E. T. Indermill.

Inspector—Thomas Hart.

Treasurer—Carl Brainerd.

Foreman—J. F. St. Clair.

Trustees—L. E. Carson (18 months), Albert Barcia (12 months), P. Jacobs (6 months).

It was moved and carried that the charter be kept open for 30 days, until April 17. After this date the initiation fee will be \$5. The Organizer was instructed to secure the charter from the Brotherhood of Electrical Workers at once. The next regular meeting will be held on Wednesday, March 31, at Cigarmakers' Hall, 820 State street.

E. T. I., Press Sec'y.

#### UNION NO. 61, LOS ANGELES, CAL.

We were one and all at our last regular meeting admonished to attend the next meeting fully prepared with ideas and suggestions on the best methods to adopt in case an unfortunate lineman is suddenly caught by a live wire. This thought or idea was proposed by Bro. Woodis, who, by the way, always has on hand some good ideas. This subject should greatly interest every man following the electrical business for a livelihood, for not a single day passes but that some poor unfortunate electrical worker is killed or maimed for life, and in many cases this could be avoided no doubt, if we had at hand some practical idea. Let us hear from all on this subject.

I do not know that I can report any great improvement in the electrical business. However, there is being done considerable work in our city. C. J. Corcoran, assistant superintendent of construction for the Phone, left for San Diego a few days ago with a body guard of fifteen men. Each guard received \$40.00 per month and rations. The man who does not know a pair of connectors from a pair of forceps, nor a pair of climbers from an Oregon boot, receives the same pay as a practical lineman. I would advise all who consider themselves tradesmen to remain at home.

The City Council has just passed an ordinance, not to allow telephone, telegraph and electric light companies to plant any more poles in the conduit dis-

trict, and further that all poles in said district must fall to the earth before the end of this year.

C. P. LOFTHOUSE,  
Press Secretary.

#### UNION NO. 65, BUTTE, MONT.

Our Union is gliding along very smoothly. We are taking in new members every meeting. We have forty-one lights on the circuit now and more coming. There are generally about 25 members present every meeting, which shows that our members take an interest in the Union. Twenty-five is a good deal, but there is nothing to keep any one from attending, as we meet on Sunday evening. Of course, those that wish to go to church can be excused. I don't think we would miss them.

A lot of the brothers are complaining about not getting their papers. I wonder who is to blame? Did the G. S. not get their proper address?

We elected a new president last meeting in place of Bro. Vic Poissant, who resigned, as he expected to be out of town a good deal. There were three nominations, Bros. Dutton, Talbott and yours truly. Bro. Talbott wanted to withdraw in Bro. Dutton's favor; Bro. Dutton wanted to withdraw in my favor, and I wanted to withdraw in favor of anyone; but the boys would not have it that way, so they run us all, and it was a merry war while it lasted. I would have been President but I did not get enough votes. Bro. Talbott was like me; he lacked some votes, too, and the reason Bro. Dutton beat us was because he had the votes we needed. There was no jealousy. We all want to see the best men in the best places. Either Bros. Talbott or Dutton would fill the chair with credit, but only one could be elected, and Bro. Dutton took the chair with all the dignity of an officer, and the gavel will have the respect due it. I have often thought that the gavel should be a stuffed club, and am going to make a motion to that effect. Then, perhaps, Bro. Ellerick will behave and sit down when he is told. Just because I called him to order, and the President sustained me, he threatened to get even. I guess he forgot that I was a newspaper reporter, and as the pen is mightier than the sword I am going to use my might. I guess I can roast him if I want to. You had better make up, Fred, or I will tell where I saw you not long ago.

Bro. Harry Layne met with a bad accident. He was going up a ladder with a converter on his shoulder, when the ladder slipped and he fell to the ground and the converter fell on one of his fingers and cut it off between the end of the nail and first joint. He is all right again and working. Bro. Toole came near losing his life last month. Bro. Layne and Toole were removing an old power circuit that crossed a railway track. They just had the wire down when a switch engine came along. The boys tried to have the engineer stop, but he did not hear them and kept right on and caught the wire, and the wire caught Bro. Toole and took him over a dump thirty feet high, and then dragged him about fifty yards over a very rough, rocky road. He was bruised considerably about the body, but his worst injury was a long cut over the forehead, which extended half way around his head. He was taken to Murray and

Freunds Hospital, and we are glad to say he is out again; a little disfigured, but still in the ring. Bro. Layne says his head is iron. Bro. Toole is in good standing and will be taken care of by the boys until he is well again.

Everything is going along nicely in Anaconda, and we are glad to hear of some of the boys getting along so well. They are working about full time over there.

We would like to see Mike Sullivan and Ed De Mers and some more of the boys' names on our Union roll. We all know you are with us heart and hand, nevertheless we do hate to see a good Union Brother pay a big fine for a small offense. It seems that Bro. Clinton was moving a fire alarm box when the Chief of the Anaconda Fire Department came along and put his nose into it, without Bro. Clinton's consent, and the result was, he got it poked, and if he don't leave Bro. Clinton alone he will get it poked again, even though it should cost \$100.00 every time.

Bro. Vic Poissant just returned from Virginia City, Mont., where he was doing some work for the Ruby Telephone Co. We were all glad to see his smiling face up at our last meeting.

I was not feeling very well last month so I did not write anything to the Worker. The boys say I had a dose of the limps. I don't know what they meant as I never noticed I limped much.

We have a grand total of forty-one. I think about fifty-five will be our limit, as we have that much in sight. I am pleased to say that every member is deeply interested, and Union No. 65 has a very bright future in view.

GEO. KESSLER AITKEN,  
Press Secretary.

#### UNION NO. 67, QUINCY, ILL.

I am a little late this time, but will write just a few lines, for if I don't the boys of 67 will be after my scalp in short order.

Good health, no accidents, and all busy, is about the best report I can make. Bro. Ed. Flaherty is sick at Hot Springs, Ark., with the la grippe and inflammatory rheumatism.

Bro. Wagner has just finished wiring St. Boniface Church and school; about three hundred lights. He was ably assisted by Bro. Joe Weinhoff.

Well, we are having plenty of rain here at present, and we enjoy it, of course.

Work is not as plentiful as we expected at this season of the year. Our boys have just enough to keep them out of devilment, but need no extra help.

As I am late, and this being the first of April, and news scarce, I will make this letter short, and then I have taken a good deal of space in another letter this month, so I bid you all adieu for the present, hoping we will all have more prosperity next month to report.

O. H. MCNEMEE,  
Press Secretary.

#### UNION NO. 68, LITTLE ROCK, ARK.

I am not the Corresponding Secretary, but have been appointed to assist in getting something in the "Worker" this month, but I see that our Corresponding Secretary has not made any effort to do anything. I will, therefore, have to go it alone.

Hello, Union No. 68, Little Rock, Ark. There are brothers who said No. 68 was

dead, but whoever said so made a big mistake, for No. 68 is doing better now than she ever did, since we have got rid of a few who came into the Union to beat what few honest men we had out of their hard earnings. But, thank God, we are rid of them, and are getting along all O. K. We have a dollar or two in the treasury, and there is no danger of any one stealing it from us.

Well, brothers, I want to say to some who were in Little Rock when No. 68 first started, that the new telephone company's men were always right to the front in the Union, but for the last year it would be quite a treat to see one of them in the Union; but I think the Union can get along without them better than it could with them. That is all I have to say about the new company or the Little Rock Telephone Co., as they call it.

Well, Brothers, as for the work in Little Rock, there is nothing much doing at present, but I think there will be some work on toll lines this summer, for I understand they intend to extend their lines to Fort Smith, Ark., and to Clarksville, Tex., and the Postal is also building some lines in this State.

J. M. MATTOX.

#### UNION NO. 69, DALLAS, TEX.

Once again we come before you to give what little news we have collected in the past month, and I assure you we have not been overworked in the least, but we look for some work to be done here in the near future by the Postal Co. There have been several car loads of poles distributed out from Dallas, and some 25 cars yet to be received here. So from all indications now at hand, there will be six or seven gangs set to work in a very short time.

Bro. Charley Hatt, of No. 9, Chicago, and Bro. Ed. Cannon, of No. 75, Grand Rapids, are with us, and we more than welcome the brothers to No. 69. Bro. Hatt told us some of the conditions that existed in Chicago and other cities, and if true, and we cannot doubt them, we are very grateful that we are in Texas. Although we thought we were in a very bad condition, yet people tell us Texas is in a far better condition to-day than any other State in the Union. They say we must wait for that tariff bill, nit.

CHAS. TROTTER,  
Press Secretary.

#### UNION NO. 71, GALVESTON, TEX.

Since depositing my card with No. 71 I have been elected Press Secretary, and will endeavor to fulfill my duty as such.

Work here is not very rushing at present, although I believe all of our members are employed now.

At the last election of officers we decided that we had a very good set of officers, so they were all re-elected, with the exception of Vice President, who was absent from the meeting, so Bro. Williamson was elected to fill that office. We turned the X-rays on one new member at our last meeting, and have another one to take in at our next meeting. Keep the good work up.

The Santa Fe R. R. are building a new union depot here, and that will probably give employment to several of our boys in a few months, if things should slack down in the meantime.

Bro. Ellison sprung something new on us at the last meeting in the form of a

question box, and there were some corks in it, too.

I am sorry to see the trouble that has sprung up between No. 71 and members of No. 66, and I for one think that the best way to settle the whole affair would be to refer the matter to the Executive Board and let them settle it, as it would not be fair to try members who are not here now, and who would be unable to attend a trial here, although the charges preferred against them by No. 71 are undoubtedly true. But still I think that No. 71 acted rather hastily in drawing up the resolutions they did for publication, as the charges should not have been published until after the case had been tried, according to the constitution.

If any of the brothers should meet up with a man by the name of Charles R. Pengilly, just please bear in mind a few of the following facts: He came to Galveston some time in October of 1896, as far as I can learn, and made out an application to join No. 71, but as work was not steady, he asked for time to pay the initiation fee, as he said he had a family and was very hard up. So he was given a permit to work, and his application was to be held until such time as he could pay up. Well, things ran along until about the 1st of February. In the meantime a contract for a new grain elevator had been let, and work had begun on it, but the contractors refused to recognize Union labor, so the job was scabbed by the B. T. C. No. 71 was informed that an electrical worker was at work on the job, and upon investigating the case, it was found that this man Pengilly was at work putting up arc lights for them. After the brothers here had tried to help him in every way possible, he deliberately turned around and scabbed on us, and I am sure that if a man would scab in one town he would in another, and I think that it should be the duty of every brother to watch out for such men, and blacklist them wherever they are met.

What is the matter with No. 60? Wake up and appoint a Press Secretary, and let us hear from you occasionally.

I almost forgot to mention another visitor we had. His name was F. J. Sheridan, who was also given a permit to work, and afterwards it was learned that he had been expelled or suspended from No. 26. We got to questioning him pretty closely, and he smelt a mouse, for he had to leave town very suddenly, but none too soon, as there was a detective on his trail, and not very far behind, either.

W. M. GRAHAM, Press Sec'y.

#### UNION NO. 75, GRAND RAPIDS, MICH.

We held a rousing meeting last night, and added three lights to the circuit and inspected five others. We made some changes in officers since our last report. Bro. Joel Aldrich, foreman of the city firm alarm, resigned the presidency to accept the office of treasurer. Bro. D. B. McIntyre, foreman of street railroad linemen, our former press secretary, was elected president, and the office of press secretary, which he so ably filled, will hereafter suffer at the hands of the undersigned. Owen Freeman of the Citizen's Telephone Co., will record our uprisings and down-sittings in the capacity of recording secretary.

Nearly all of the boys are at work. Both the Citizen's and Bell Telephone companies are building a line to Cadillac, and it is rumored that the Detroit and Grand Rapids Citizen's Co. will soon build a connecting line, and the telephone war wages merrily.

Accidents, sickness, joys and sorrows are meted out to us as Providence sees fit. Bro. Freeman Gunnell of Powers' Electric Light and Power Co., while wiring a hotel, stepped into the elevator shaft. Down comes the elevator. "Stop!" shouts Freeman, and the elevator man stopped, but not until he had badly damaged our brother—enough to lay him up for several days. It would be better to shout before you go into an elevator shaft.

Bro. McIntyre's wife has been very sick in the hospital.

Bros. Ruck and Hicks are rejoicing and crowing over some of us, because they have lately become the proud fathers of baby daughters.

As practice makes perfect, I hope to write a more interesting epistle next time; though in my wildest fancies I never expect to completely fill the place as nobly as did Bro. McIntyre. The noblest words of tongue or pen are "try, try again," and I will try again next month.

C. EUGENE POST,  
Press Sec'y.

#### UNION NO. 78, SAGINAW, MICH.

Union No. 78 has moved into new and commodious quarters as has also the Central Labor Union of this city. The union is in good shape, and the boys are as contented as can be expected during these stringent times.

Bros. Niven and Strachan are not at all slow in the world, in corroboration whereof I present the following taken from the "Saginaw Evening News":

#### AN INVENTION BY SAGINAW YOUNG MEN WHICH PROMISES MUCH FOR THEM.

Screwed to the wall in the rear of the office of the Swift Electric Light company has been until this afternoon a sort of iron box, arrangement not unlike on the outside to a common meter for measuring gas, water or electricity. This thing has been hanging there for three weeks. It is the invention of John Strachan, an electrician at the works, and James Niven, the bookkeeper, and meter man of the company. The only place on the outside where the box differs from a common meter is that there is a hole on the top where money or anything else can be deposited. This affair is a successful quarter in the slot machine for collecting lighting bills in advance.

When the cover is off a number of electric magnets are exposed and a network of wiring, which is a puzzle to any person not an expert in such matters. There is also a piece of clock work, which was in reality taken from a clock. This with a regulation meter completes the arrangement. When a quarter is placed in the slot, the width of the coin on reaching the proper place causes certain contacts to be made, which actuate electric magnets, and these in turn release the wheels in the clockwork which automatically set the lock on the meter so that when 50 amperes of current have passed through it the current will be shut off until the operation is repeated. The machine has been tested in every way during the time which it has been on the

office wall and it has been found impossible to beat it. It is impossible to set the clock work going with a wire or anything which is not exactly the size of a quarter and an electric magnet will draw anything that can be magnetized out of the slot. It is the only machine of its kind in the country and electricians generally, who have seen it have nothing but words of praise for the inventors. GEO. S. CRABEE, Press Sec'y.

#### KIND WORDS FROM A "SISTER."

Editor Electrical Worker:

Please may I say just one word to our friends through your most valuable letter journal? In the January number I saw an invitation to the sisters. Sister means me, too.

I am very proud that my husband is a N. B. E. W. man, and I think the "Electrical Worker" a most interesting paper.

I wonder how many of my sisters say and think a lineman the wickedest man in this world? How many stop to think that this man's soul is as precious as ours, and though he's among strangers, he's some one's darling, some mother's boy. Remember, dear ones, that we cannot judge a multitude by one man's misdeeds. Let us always remember that God, not we, knows the erring one's heart. Let us, then, pray for God's love and strength to guide us in our love and judgment of others. Let us be kind and true to them and, believe me, dear ones, you will find in them true and honest men. Do not shun them and slight them, for then you only send them a step further down the ladder of ruin. Remember that our loved ones are not always by our sides. What mother, what wife, would not thank us for a little kindness given loved ones while away from their sides. I, for one, judge others by myself.

Do not give men the idea that they must have a ladies' division to their unions. Leave them to manage their own union affairs, for if we always carry a child, he'll never walk. Then when strikes are on you and I can protect our little home from being destroyed by the non-unionist. We can then train our little ones to a life of usefulness that will speak more to the world of women's greatness than all the auxiliaries in the universe.

I am a true friend to the union man, especially to his loved ones. God bless you, my friends, and warm our hearts toward all mankind, whether he be union or non-union. All have souls to save and a right to live, and by the love of union and union sympathies all wish to be union men. When the non-union man sees the love and harmony in which the union man lives, he, too, will become a union man. Let your light so shine that its rays may fall upon the darkest corners of non-unionism. Leave not the smallest or largest tasks undone. Lay not your armor down until every one is in the union—one mighty body. Yours in faith, hope and charity.

BEATRICE.

Grand Rapids, Mich.

#### THROUGH ENGLISH EYES.

First Impressions of the First Meeting Attended in America.

It is pleasant to turn from revolutionary violence and the frenzy of the Social-

ist to the mild methods of the Reformer; to hear moderate men discuss moderate measures as they strive to put in practice, one step at a time, the sweeping and salutary changes about which the extremist thunders until the terror of his talk defeats its own ends by paralyzing action.

It will be a great day for the world when all sober talking men in every country take in hand one mighty problem of this mighty age. The sooner it is done the better, for we must all recognize that unless such questions as the relation between capital and labor be faced and solved, the diseases of our time will have gathered such growth as shall defy the skilled physician, and even baffle the sterner surgeon.

England is keenly alive to these imminent dangers, and never feels the gall of her fetters of tradition more severely than when striving to bring the classes and masses to unite for the salvation of their country.

It was my privilege, as a stranger and a pilgrim, to attend the weekly meeting of the New York Social Reform Club, and the contrast I witnessed there has left upon me an impression most vivid and encouraging.

In the Old Country I have listened to the lofty theories of the Fabian Society, and heard the wild vaporings of the peripatetic Socialist. I have read the careful arguments of philosophers and skimmed the erratic pages of the lighter Socialist literature. The one ends in impracticability, the other in revolution, and from each and all one turns with a sigh to wish that England were Utopia.

But here before me in New York was something between the two; something which not only may be, but undoubtedly is, the beginning of the true movement toward that ideal state which Sir Thomas More could only locate in No Man's Land.

For the first time in my life I saw the true spirit of Democracy. I have seen titled ladies at an East London Bazaar, and the country families at a village concert. I have witnessed the frantic struggles of a cultured candidate for Parliamentary honors in the uncongenial atmosphere of a country inn, and the awkwardness of a Radical Peer at a so-called Democratic Club. They descended but to be exalted. The friendly hand is the hand of condescension, and the return greeting is made humbler by gratitude.

But here was a leader among men—a man of birth, culture and refinement, literally received and treated as an equal by a miscellaneous gathering, and in turn speaking, acting, working as an equal.

The unpretentious room was crowded to excess with all sections of the community. Nothing divided Dives from Lazarus. There was no platform, even for the speaker! Workmen and students, profession and trade side by side, and in turn speaking, acting and working as an equal.

It may seem a common thing to Americans, but to one born and lived in the traditions of English class distinctions, it was a strange sight, and a great one.

First I listened to a clear and cultured account of recent police legislation from Mr. Theodore Roosevelt, with a few general remarks on his sympathy with the aims and efforts of the club.

Then arose Mr. Oppenheimer, a German Socialist thinker of a pronounced type, to offer criticism. He did not shrink from attacking so powerful a man.

There was no deference to superior training or higher commercial rank. He was not even polite! He just said what he thought, and the audience applauded or dissented at its own sweet will.

An English minister under such circumstances might have girded up his loins and fled the scene. The offender might have been expelled *vi et armis*, or, with infinite contempt, he might have been urged to go on, and the very discourtesy of his speech would have rendered a reply from regions so lofty unnecessary.

Not so Mr. Roosevelt. He took Mr. Oppenheimer seriously, and the sting of his strictures seemed only to spur him to healthy action. Delighted, I listened to a master piece of cynical repartee. Not the mere smartness of the practised speaker, but satire used to emphasize facts, which, like rope coated with wire, proved so strong a combination that the voice of dissent was stifled, and the gratified assembly swarmed around to congratulate the orator, and thank the faithful and fearless public servant.

And here, at the close of the meeting, was the scene most singular of all to English eyes. The general introductions, hearty hand shakes, free conversation, honest criticism and earnest desire to learn and know.

I left those modest rooms convinced, at length, of two things. First, that plutocracy in America has not yet wholly taken the place of aristocracy in England. Second, that if social reforms are to come, here is such a practical beginning as shall commend itself to the moderate reformer, the true patriot and the sincere philanthropist.

FRANCIS H. TABOR,  
Of Christ's College, Cambridge.

#### A GOOD BOOK TO READ.

"Progress and Poverty," by Henry George, has, perhaps, the largest circulation of any work of this class of literature, and meritedly too. Every proposition advanced is clearly stated, free from sophistry. The palpable and tangible truth is so evidently revealed, that one wonders, after a careful reading, that in this age of progress and reform the natural law of economical government it advocates is not more prevalent, notwithstanding the abnormal greed for pelf. It points out clearly beyond a possibility of a doubt that it would destroy this unnatural thirst for gold by a system of impartial and equitable laws economically maintained, and thus kill the need of a catch-as-catch-can policy, regardless of results to future generations. That there is something radically wrong in our system of government, can no longer remain a matter of doubt in any candid reader's mind, rich or poor. The only solution possible to a rich man's indifference to such a measure of equity as this invaluable book advocates, is that he must enjoy seeing his fellow beings suffer in want and misery, since it would not cause him to lose any of his ill gotten gains, but rather increase them legitimately. The poor man who reads the work and fails to pass it on to his benighted neighbor, and thus help to formulate an intelligible demand for what he is justly entitled to, must love his

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penurious misery and is a cringing slave. On the whole no book is more interesting and more pregnant with facts. Read it and judge for yourself, reader, whether or not this opinion is extravagant.

Commenting on this class of literature brings to mind a novel written by Cowdrey, "A Tramp in Society." You will find it advertised in the February number of the Worker. The fundamental idea is much of the same character as that which permeates Edward Bellamy's "Looking Backward." Any one who has read this book will not fail to tell you that there are few more interesting novels. But "A Tramp in Society" is more up-to-date and less chimerical; the possibility of the social condition it propounds is more feasible and in accordance with real reform. The plot is interestingly treated, and shows what one man can do when driven to the wall by the hard conditions of usurers, where we nearly all find ourselves to-day, and it is therefore more interesting on that account. Read it and see how it compares with your condition.

H. M.,  
A Member of No. 1.

The Committee on Organized Labor of the Social Reform Club, New York, offers a prize of ten dollars (\$10) for the best article on the Union Label. The article must not contain over 1600 words, and should be written on one side of the paper only. It must be handed in before May 15, 1897. The author's name must not be upon the article, which should be signed with a *nom de plume*.

## Directory of Local Unions.

(Secretaries will please furnish the necessary information to make this directory complete. Note that the time and place of meeting, the name of the President, the names and addresses of the Recording and Financial Secretaries are required.)

No. 1, St. Louis, Mo.—Meets every Tuesday at a. c. cor. 21st and Franklin avenue. M. L. Durkin, Pres., 223 Wash st.; L. H. Daggett, R. S., 1220 St. Ange av.; J. P. Casey, F. S., 2702 Spring av.

No. 2, Milwaukee, Wis.—Meets every Friday at 318 State st. W. A. Gerardeau, Pres., 457 Broadway; Chas. Herman, R. S., 1805 Walnut st.; Joe Harris, F. S., 446 Russell ave.

No. 3, Denver, Col.—E. L. Layne, Pres., 1011 19th st.; Geo. P. Manning, Sec., 1633 Lawrence st.

No. 4, New Orleans, La.—Meets 1st and 3d Tuesdays at Carondelet and Perdido sts. J. McGregor, Pres., 2111 Rousseau st.; C. M. Hale, R. S., 630 St. Mary st.; R. B. Joyce, F. S., 331 S. Bassin st.

No. 5, Pittsburg, Pa.—T. K. Bevington, Pres. 19 Race st., Allegheny; H. McGregor, R. S., Nesbit & Allequippa sts.; Y. Bevington, F. S., 5621 Margretta st.

No. 6, San Francisco, Cal.—Meets 2nd and 4th Wednesdays at Forester's Hall, 20 Eddy st. A. C. Johnson, Pres., 226 Turk st.; J. J. Cameron, R. S., 1510 Mission st.; J. R. Filton, F. S., 428 Geary st.

No. 7, Springfield, Mass.—Meets every Wednesday at room 14, Barnes Bldg. Wm. Gregg, Pres., 107 Bancroft st.; T. H. Bowen, R. S., 26 Hubbard av.; Jos. McGilvray, F. S., 34 Gray av.

No. 8, Toledo, O.—Meets every Tuesday at Friendship Hall, cor. Jefferson and Summit sts. P. Crowley, Pres., 848 W. Lafayette st.; E. McGinn, R. S., 235 Western ave.; W. H. Welsh, F. S., 1907 Cherry st.

No. 9, Chicago, Ill.—Meets every Saturday at 106 E. Randolph st. A. F. Snider, Pres., 3433 State st.; L. Christenson, R. S., 1043 S. Irving ave.; A. McFarlane, F. S., 5657 Princeton av.

No. 10, Indianapolis, Ind.—Meets 1st and 3rd Monday at 29½ W. Pearl st. John Berry, Pres., care of headquarters Fire Dept.; E. Bussele, R. S., 487 N. Illinois st.; E. C. Hartung, F. S., Rooms 5-7 Cyclorama Bldg.

No. 11, Terre Haute, Ind.—Meets 2d and 4th Tuesdays at 8th and Main sts. C. D. Updegraff, Pres., 529 S. Ninth st.; M. Davis, R. S., 918 N. 9th st.; W. H. Schaffer, F. S., 114 N. 14th st.

No. 12, Evansville, Ind.—Meet every Tuesday at cor. 3rd and Sycamore st. Harry Fisher, Pres., 200 Clark st.; A. L. Swanson, R. S., 1054 Water st.; A. N. Grant, F. S., 202 Clark st.

No. 14, Memphis, Tenn.—Chas. E. Blake, Pres., 70 Mulberry st.; J. A. Myles, Sec., 207 De Soto st.

No. 15, Philadelphia, Pa.—Meets every Tuesday at 711 Spring Garden st. E. G. Boyle, Pres., Penn. Farmers' Hotel, 3d and Callowhill sts.; E. Hennessy, R. S., 1518 French st.; Chas. T. Lang, F. S., 829 Race st.

No. 16, Lynn, Mass.—Meet at General Electric Band Room, 9½ South st. Jas. Robson, Pres., 46 W. Neptune st.; C. W. Perkins, R. S., 6 Allen's Court; E. J. Malloy, F. S., 86 Cottage st.

No. 17, Detroit, Mich.—Meets 1st and 3d Thursdays at Room 8 Hilsendegen Block. W. J. Donovan, Pres., 112 Chestnut st.; Geo. H. Brown, R. S., 50 Lewis st.; P. F. Andrich, F. S., 369 Chene st.

No. 18, Kansas City, Mo.—Meets 2d and 4th Fridays at 1117 Walnut st. J. J. Lynch, Pres., 716 Delaware st.; C. F. Drollinger, R. S., 326 Garfield av.; Kansas City, Kas.; J. H. Lynn, F. S., 1632 Jefferson st.

No. 19, Chicago, Ill.—Meets 1st and 3d Tuesdays at 6512 Cottage Grove av. M. J. Sullivan, Pres., 4951 Princeton av.; G. W. Richart, R. S., 5610 S. Halsted st.; D. Pearce, F. S., 3540 Wentworth av.

No. 21, Wheeling, W. Va.—Meets 1st and 3d Tuesdays at Trades Assembly Hall. H. F. Wyse, Pres., Box 111; C. L. Uillery, R. S., Box 111; W. J. Clark, F. S., McClure House.

No. 22, Omaha, Neb.—Meets every 1st and 3d Wednesdays at Labor Temple, 17th & Douglas st. J. W. Watters, Pres., 2211 Pierce st.; M. J. Curran, R. S., 1214 St. Mary's av.; W. J. Wales, F. S., 164 Farnum st.

No. 23, St. Paul, Minn.—Meets 2d and 4th Fridays at Labor Hall, 3rd and Wabasha sts. Jno. O'Donnell, Pres., 4th and Wabasha sts.; Thos. O'Toole, R. S., 333 E. 6th st.; F. Volk, F. S., 175 W. 6th st.

No. 24, Minneapolis, Minn.—Meets 1st and 3d Wednesdays at 34 and 36 6th st. Geo. Heilig, Pres., 18 9th st.; L. R. Stevens, R. S., 18 Western av.; A. Anne, F. S., 3129 Longfellow av.

No. 25, Duluth, Minn.—Meets 2d and 4th Thursdays at room 6 Banning Bldg. R. Thayer, Pres., 24 13rd av. W.; L. P. Runkle, R. S., 17 Norris Bldg.; Jas. F. Owens, F. S., 414 E. 1st st.

No. 26, Washington, D. C.—Meets every Monday at 628 Louisiana av. Jos. Patterson, Pres., 1127 12th st. N. E.; H. E. Kaighn, R. S., 1425 Euclid Pl.; R. F. Metzler, F. S., 509 11th st. N. W.

No. 27, Baltimore, Md.—Meets every Monday at Hall cor. Fayette and Park avs. C. F. Leitz, Pres., 506 S. Pulaski st.; J. P. Jones, R. S., 1414 Mosher st.; F. H. Russell, F. S., 1403 Asquith st.

No. 28, Louisville, Ky.—Meets 1st and 3d Tuesdays at Beck Hall, 1st st. near Jefferson. Calvin Beach, Pres., 1020 W. Market st.; Ed. Herpt, R. S., 607 Magnolia st.; Jno. C. Deibel, F. S., 418 15th st.

No. 29, Atlanta, Ga.—Meets every Sunday at 61½ Alabama st. Geo. Foster, Pres., 100 Walker st.; D. J. Kerr, R. S., 114 Richardson st.; Geo. Raymer, F. S., 121 Rhodes st.

No. 30, Cincinnati, O.—Meets 1st and 3d Mondays at 136 E. Court st. W. Williams, Pres., 26 Mitchell ave., Mt. Auburn; E. C. Genrich, R. S., 225 W. Court st.; J. F. Harmuth, F. S., 2158 Vernon st., Clifton Heights.

No. 31, Jersey City, N. J.—Meets 2d and 4th Thursdays at 116 Newark av. Thos. Watson, Pres., 513 Jersey av.; F. J. Anderson, R. S., 228 Washington st.; T. L. Jones, F. S., 137 Grand st.

No. 32, Paterson, N. J.—Meets 1st and 3d Mondays at German Union Hall. J. P. Colvin, Pres., 963 Madison av.; Jos. Maher, R. S., 348 Grand st.; Paterson Heights, Paterson, N. J.; John Kane, F. S., 274 Hamilton av.

No. 35, Boston, Mass.—Meets every Wednesday at Well's Memorial Hall, 987 Washington st. J. Larkin, Pres., 13 Cambridge st.; D. McGilivray, R. S., 7 Humboldt Park, Roxbury; R. H. Bradford, F. S., 268 River st., Cambridge.

No. 36, Sacramento, Cal.—J. A. Crombach, Pres., 1613 4th st.; E. G. Fletcher, R. S., 505 J st.; G. E. Flanagan, F. S., 1315 K st.

No. 37, Hartford, Conn.—Meets 1st and 3d Fridays at Central Union Labor Hall, 11 Central Row. M. F. Owens, Pres., 63 Hawthorne st.; D. F. Cronin, R. S., 49 Windsor st.; C. E. Byrne, F. S., 16 John st.

No. 38, Cleveland, O.—Meets every Thursday at 393 Ontario st. R. M. Ross, Pres., 33½ Colgate st.; H. C. Ott, R. S., 68 Clara st.; J. E. Suloff, F. S., 28 Norton st.

No. 39, Providence, R. I.—Meets 1st and 3d Mondays at Phoenix Bldg, 157 Westminster st. H. B. Kelly, Pres., 1950 Westminster st.; M. L. Carder, R. S., 40 Wilson st.; G. D. Higgins, F. S., 8 Carpenter st.

No. 40, St. Joseph, Mo.—Meets every Monday at north-west corner 8th and Locust sts., "Brook-aw's Hall." R. M. Martin, Pres., 1702 N. 3d st.; Wm. Dorset, R. S., 1710 Calhoun st.; F. A. Dunn, F. S., 426 Edmond st.

No. 41, Philadelphia, Pa.—Geo. A. Neal, Pres., 3626 Wharton st.

No. 43, Syracuse, N. Y.—F. A. Chadwick, Pres., 108 Roberts ave.; G. A. Davenport, R. S., 553 Seymour st.; Chas. A. Miller, F. S., 906 Montgomery st.

No. 44, Rochester, N. Y.—F. M. Kehoe, Pres., 21 Costar st.; Wm. A. Breese, R. S., 56 4th st.; Fred Fish, F. S., 123 State st.

No. 45, Buffalo, N. Y.—Meets 1st and 3d Saturdays at Council Hall. Wm. Haley, Pres., 125 Erie st.; Chas. Guyton, R. S., 124 Swan av.; C. E. Stinson, F. S., 298 Carolina st.

No. 46, Lowell, Mass.—M. J. Burns, Pres., Police Dep't; Thos. Dalton, R. S., 368 Concord st.; H. E. Maguire, F. S., 95 Christian st.

No. 47, Worcester, Mass.—C. C. Coghlin, Pres., 113 West st.; Geo. R. Lincoln, Sec'y, Millbury.

No. 48, Ft. Wayne, Ind.—Meets 1st and 3d Fridays at cor. of Main and Clinton sts. R. Bartel, Pres., Hotel Tremont; A. J. Lathouse, R. S., 148 Wells st.; C. B. Taylor, F. S., 31 Douglas av.

No. 49, Bloomington, Ill.—Meets 2d Monday at Trades Assembly Hall. C. F. Snyder, Pres., Box 328; Guy Carlton, R. S., East and Market sts.; W. C. Gorey, F. S., 409 S. Madison st.

No. 51, Scranton, Pa.—Jas. Harding, Pres., 601 Meridian st.; P. Campbell, R. S., 1210 Irving av.; Ruben Robins, F. S., 1223 Hampton st.

No. 52, Davenport, Ia.—Meets 1st and 3d Tuesdays; A. L. Wheeler, Pres., Hotel Downs; J. H. Clark, Sec., 215 Iowa st.

No. 53, Harrisburg, Pa.—C. A. Swager, Pres., 115½ Market st.; Jas. Emminger, R. S., 25 N. 15th st.; C. Anderson, F. S., 46 Summitt st.

No. 54, Peoria, Ill.—Meets 1st and 3d Wednesdays at 301 Main st. H. Scheerer, Pres., 219 W. Jefferson st.; Harry Dunn, R. S., East Peoria; L. C. Crawley, F. S., 115 Washington st.

No. 55, Des Moines, Ia.—L. M. Steadman, Pres., E. T. Purcell, R. S., Gratis st. S. S.; Wm. Leedon, F. S.

No. 56, Erie, Pa.—Ed. Gilmore, Pres., 218 State street; E. T. Indermill, R. S., care Black Mfg. Co.; J. P. Haulon, F. S., 23 N. Park Row.

No. 57, Salt Lake City, Utah.—R. Blair, Sec'y, care of Citizens E. L. Co.

No. 60, San Antonio, Tex.—Meets 1st and 3d Saturdays, Meyers' Hall, Alamo Plaza. Martin Wright, Pres., 114 Romania st.; J. P. Gittinger, R. S., 326 Fest st.; W. F. Hendricks, F. S., 722 Mosquito st.

No. 61, Los Angeles, Cal.—C. P. Lofthouse, Pres., 746 San Julian st.; F. W. Messacar, R. S., Station A; W. R. Kingston, F. S., 119 Kern st.

No. 62, Kalamazoo, Mich.—A. D. Ayres, Pres., 534 S. Burdick st.; L. Bellman, R. S., 540 Pine st.; G. E. Tilt, F. S., 324 Sarah st.

No. 63, Tampa, Fla.—Theo. Glinn, Pres., Pt. Tampa City; W. P. Crofts, R. S., lock box 264; Arthur D. Henry, F. S., box 220.

No. 65, Butte, Mont.—Meets 1st and 3d Sundays in Good Templars Hall, W. Broadway. J. R. Dutton, Pres., 601 Placer st.; D. J. Winslow, R. S., 103 E. Granite st.; A. G. Ellerick, F. S., Gen'l Del.

No. 66, Houston, Tex.—Meets 1st & 3d Mondays. G. O. Wood, Pres., 1214 Providence st.; A. H. Stelle, R. S., 12 Main st.; W. V. Fisk, F. S., care Telephone office.

No. 67, Quincy, Ill.—Meets 2nd and 4th Wednesdays at Trades Assembly Hall, So. 5th st. W. F. Wagner, Pres., 641 Locust st.; E. W. Nessler, R. S., 602 Sixth ave. S.; D. M. Mallinson, F. S., 1120 Vine st.

No. 68, Little Rock, Ark.—G. W. Wilson, Pres., care Brown Machine Co.; C. J. Griffith, R. S., care L. K. Tract. & El. Co.; C. M. Milham, F. S., 309 W. Markham st.

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No. 79, Austin, Tex.—Meets every Thursday night at Maccabee Hall. J. L. Vorkauer, Pres., 1206 San Jacinto st.; Chas. J. Jackson, R. S., Mayor's office; B. Y. Lovejoy, F. S., 109-111 E. 7th st.

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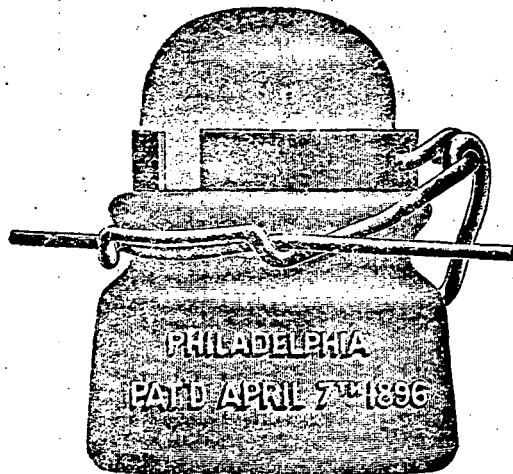
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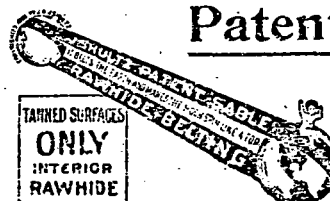
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